

# Medical Examiner's District

Serving Tarrant, Denton, Johnson, & Parker Counties



# 2017 ANNUAL REPORT



# Accredited by:



Accreditation Council for  
Graduate Medical Education (ACGME)



American Society of Crime Laboratory Directors/  
Laboratory Accreditation Board (ASCLD/LAB) -  
certificate numbers *ALI-348-T* and *ALI-012-C*



National Association of Medical Examiners  
(NAME)

## **Tarrant County Medical Examiner and Forensic Science Laboratories**

200 Feliks Gwozdz Pl., Fort Worth, TX 76104-4919

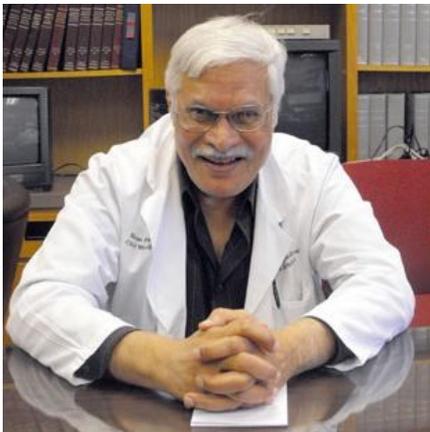
Tel.: (817) 920-5700 | Fax: (817) 920-5713

<http://access.tarrantcounty.com/en/medical-examiner.html>

*From the Office of the*  
**Tarrant County Chief Medical Examiner**

**W**henever we are called upon to assist, even if it is outside our defined jurisdiction, beyond the scope of our duties, or otherwise removed from our responsibilities under the law, it is our general policy to help people reach the appropriate person or agency who can assist them. This is not only our philosophy, but our commitment to those we serve.

The primary purpose of the Tarrant County Medical Examiner's Office is to assist the public and law enforcement in determining the cause and manner of death whenever death occurs without medical attention, from unnatural causes, or in the wake of violence. We are proud and grateful to be able to carry out our mission using state of the art laboratory and forensic science facilities.



Sincerely,

**Dr. Nizam Peerwani**

*Chief Medical Examiner*



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# About Us

Originally established in 1965, the Tarrant County Medical Examiner's Office today serves four counties—Denton, Johnson, Parker, and Tarrant—with a total district population exceeding 2.8 million. As the district continues to grow, the Tarrant County Medical Examiner's Office remains committed as ever to providing the highest quality of service to the loved ones of each decedent and to the legal system.

As the district's population has boomed, so too have advances in the field of forensic science and its companion subjects of anatomy, physiology, chemistry, and biology. The staff at the Tarrant County Medical Examiner's Office understand the need to keep up with these exciting developments and they routinely apply their knowledge in these areas to the science of determining the cause of death.

In this endeavor, the staff of seven highly trained, board certified forensic pathologists are aided both by an investigative team staffed round-the-clock and a full complement of support services, including human identification, toxicology, criminalistics, and forensic anthropology.





The wealth of information available at the office and our staff's passion to educate combine regularly to create knowledge-sharing opportunities like the Tuesday Morning Forensic Rounds, Current Trends in Forensic Science conference, and periodic training sessions with Physicians for Human Rights. We also provide advanced forensic training at the International Forensic Science Center to scholars from abroad. Members of the staff are frequently invited to provide services, give lectures, and perform consultations both nationally and internationally.

Our staff's outstanding qualifications, our state-of-the-art equipment, our strict compliance with statutes and regulations, and our accreditation by both the National Association of Medical Examiners and the American Society of Crime Laboratory Directors/Laboratory Accreditation Board all help make the Tarrant County Medical Examiner's Office one of the premier medical examiner offices in the nation.

With this report, we aim to impart an appreciation for the depth of our commitment to deliver excellent quality and service. Every day presents new challenges for us, but we are always seeking to develop and implement new services and procedures in order to better serve you and the community.

# Frequently Asked Questions

## *What is a Medical Examiner case?*

[Article 49.25 of the Code of Criminal Procedure, State of Texas](#) clearly defines which cases fall under the jurisdiction of medical examiners. Medical examiner cases include sudden, unexpected, violent, unnatural, unattended and other deaths “affecting the public interest.”

## *What are your business hours?*

The Tarrant County Medical Examiner District Office serves the public from 8:00 am to 4:30 pm Monday through Friday, excluding County and Federal holidays. Our contact information is:

Tarrant County Medical Examiner's Office  
200 Feliks Gwozdz Pl., Fort Worth, TX 76104-4919  
(817) 920-5700

<http://access.tarrantcounty.com/en/medical-examiner.html>

The District includes three other counties with satellite offices:

### **Denton County**

535 South Loop 288, Suite 1132, Denton, TX 76205-4502  
(940) 349-2870; (972) 434-8833

<http://dentoncounty.com/Departments/Health-Services/Health-Department/Medical-Examiner.aspx>

### **Johnson County**

103 S Walnut Street, Cleburne, Texas 76033  
(817) 558-2245

<http://www.johnsoncountytexas.org/departments/medical-examiner>

### **Parker County**

129 Hogle Street, Weatherford, Texas 76086  
(817) 594-3213; (800) 233-3732

<https://parkercountysheriff.net/contact-us/>

*Do I make complaints to your office about a doctor I am having trouble with?*

**No.** The Texas Medical Board is responsible for complaints regarding physicians. Please visit their website at <http://www.tmb.state.tx.us/page/place-a-complaint>. If you have a complaint about our staff please feel free to call us at (817) 920-5700, extension 8330, to speak with our Administrative Director.

*What is an autopsy?*

An autopsy is a dignified surgical procedure that provides a systematic examination of the body of a deceased person by a qualified physician. All the physicians performing autopsies at Tarrant County Medical Examiner's District are certified by the American Board of Pathology in anatomic pathology and forensic pathology. During the procedure, a body is inspected for the presence of disease or injury, and minimal specimens of the vital organs and/or body fluids may be taken for further analysis. The internal organs and the brain are examined, then replaced in the body for burial.

*Does the law require the medical examiner to perform an autopsy on every reported death?*

**No.** The law only stipulates that the medical examiner shall perform an "inquest", or inquiry into death. It is left up to the discretion and learned judgment of the medical examiner to perform an autopsy in cases affecting the public interest. In only about one-fifth of the cases investigated by the medical examiner is an autopsy deemed necessary. In some cases, the medical examiner may perform a limited or partial autopsy; this is allowed by the statute.

*Does the family pay for any medical examiner services?*

**No.** These are statutory examinations and families pay nothing for the medical examiner services or for the transportation of remains to the Central Morgue for examination. Families may be billed by the funeral home for transportation to the funeral home they select after completion of the examination.

### *How long does an autopsy take?*

A standard forensic autopsy will take two to three hours. Complicated medical cases or cases of traumatic deaths with multiple injuries can take longer in order to fully document all observations.

### *What if objections to an autopsy are raised?*

When family members object to an autopsy based on religious beliefs, cultural traditions, or other deeply-held convictions, every effort to honor the objection will be made. However, if the public responsibility cannot be fulfilled without performing an autopsy, or at least a limited autopsy, the family will be provided an opportunity to be represented by legal counsel and to have their objection presented to a judge before the autopsy is performed, whenever possible.

### *Are tests for drugs and alcohol performed?*

In all cases investigated by the medical examiner, including those in which autopsies are not conducted, fluids may be taken for toxicological tests and DNA profile. The results of these tests are often important factors in being able to determine the cause and manner of death. Not all cases will receive toxicological testing, especially if such testing will not influence the cause or manner of death.

### *Can a medical examiner case still be an organ or tissue donor?*

**Yes.** Once family members have expressed interest, the medical examiner will review the request with the organ bank. Organs are generally harvested from a heart-beating donor only in a hospital setting. Tissues, including skin, bones, and corneas may be harvested at the medical examiner's office. In the vast majority of cases, the medical examiner will impose no restrictions on organs and tissues harvested with the written consent of next of kin.

### *What if no one claims the body on a Medical Examiner's case?*

The law provides for burial or cremation when no relative claims the body. These matters are handled through the county's social services department:

## Tarrant County Human Services

1200 Circle Dr., Suite 200, Fort Worth, TX 76119

Open Monday-Friday 8:00 a.m.-3:30 p.m.

(817) 531-5620

<http://access.tarrantcounty.com/en/human-services.html>

### *When is the body released?*

A body is released to a mortuary or crematory once the examination is complete and the family has designated an arrangement for burial or cremation. Family members may contact the Tarrant County Medical Examiner's Office at **(817) 920-5700** to inform us of their selection of a funeral home. The family must then instruct the funeral home to call us for release of the body.

Bodies brought to the Tarrant County Medical Examiner's Office are generally ready for release to a funeral home within 24 hours. Only in rare cases are bodies held for legal purposes. Upon request, the release of remains may be expedited in order to honor the religious, cultural, or other beliefs of the family.

### *Can we view the body?*

**No.** Our office does not have facilities for the viewing of bodies. Please contact the funeral home if you wish to view the body.

### *Do I have to identify my loved one's body?*

If identification is required, the family will be contacted by a representative of the Tarrant County Medical Examiner's Office. If your loved one is missing and you have reason to suspect that their body may be among our cases, please contact us at **(817) 920-5700**.

### *What happens to clothing and personal items?*

Unless it is identified as evidence, all clothing and personal items held by the medical examiner are released with the body to the funeral home or crematory. Any item identified as evidence is either retained for further testing and examination or turned over to the investigating law enforcement agency. For questions concerning these items, please contact the office at **(817) 920-5700**.

## *Does the Medical Examiner's Office ever keep parts of the body?*

In all cases in which an autopsy is performed, the medical examiner will biopsy and retain a small piece of tissue in order to study the organ histologically. Occasionally, a whole organ (such as the brain or the eyes) may be retained for neuropathological examination. If the next of kin desires to have these tissues returned to the funeral home after such testing is complete, please contact us **(817) 920-5700** to make this request.

## *What kinds of reports are produced?*

The Tarrant County Medical Examiner produces at least two, and generally three, reports for each case:

1. The physician's examination report (with or without body diagrams)
2. The report of death investigation
3. The toxicology report (if toxicological testing was performed)

Depending on the complexity of the case there may be other reports, including bacterial/viral culture, special chemistry, heavy metal and other poisons, anthropology, human identification, criminalistics, etc.

## *Are my loved one's reports and test results protected under the Health Insurance Portability and Accountability Act (HIPAA)?*

**No.** Records generated by the Medical Examiner in the performance of his duties are subject to the [Texas Public Information Act](#), which requires that citizens have access to information on governmental action. This transparency provides Texans with a better understanding of how their government works and, when necessary, enables them to hold their public officials accountable.

Specifically, [Section §552.021 of the act](#) allows public access to information that is written, produced, collected, assembled, or maintained under a law or ordinance, or in connection with the transaction of official business. Under this statute, all written records generated by the Tarrant County Medical Examiner's Office are public records and may be released upon request to any citizen. Note that death scene photographs and postmortem examination photographs are *not* subject to release under this statute.

## *How soon can I have the death certificate?*

Effective 2007, the Texas Health and Safety Code, Section §193.005 requires medical certifiers on a death certificate to submit the medical certification and attest to its validity using an electronic process approved by the State Registrar. Additionally, the Health and Safety Code Section §193.003 requires that the medical examiner complete this medical certification not later than five days after receiving the death record.

In the majority of medical examiner cases, the exact cause of death will be pending further testing or investigation. In these cases, the medical examiner files a “pending” death certificate. This pending death certificate is then amended once the case is complete and a cause and manner of death have been determined.

Once the death record has been filed by the funeral home, certified copies of the death certificate can be obtained from the funeral home or the County Clerk. County Clerk contact information for all counties participating in the Tarrant County Medical Examiner's District is provided below:

### **Denton County**

1450 E. McKinney St., Denton, TX 76202-2187  
(940) 349-2018

<http://dentoncounty.com/Departments/County-Clerk.aspx>

### **Johnson County**

P.O. Box 1986, Cleburne, Texas 76033  
(817) 202-4000

<http://www.johnsoncountytexas.org/government/county-clerk>

### **Parker County**

P.O. Box 819, Weatherford, Texas 76086  
(817) 594-7461

<http://www.parkercountytexas.com/index.aspx?NID=105>

### **Tarrant County Vital Statistics**

200 Taylor St., Rm. 301, Fort Worth, TX 76196-2000  
(817) 884-1550

<http://access.tarrantcounty.com/en/county-clerk.html>

### *How long does it take to complete a report?*

The [Texas Health and Safety Code, Section §671.012](#), requires that a designated physician who performs an autopsy provided for by state law shall file the autopsy report not later than the 30th day after the date of autopsy, provided that required testing can be completed within that time. Depending on the complexity of the case and the number of postmortem tests ordered, a report may take up to 12 weeks or more before being completed.

### *Will the next of kin automatically receive copies of the reports?*

**No.** As we recognize that some families will not want to receive copies of the reports, it is necessary for the legal next of kin desiring this information to contact our office, request the report in writing, and confirm their mailing address. The reports will then be sent upon completion of the case. Only one copy of the report will be sent free of charge.

Families interested in obtaining a copy of the report should submit a written request to the Records Custodian. For fastest processing, requests should be emailed to [TCMErecords@tarrantcounty.com](mailto:TCMErecords@tarrantcounty.com). If submitting a records request by mail, please use the following address:

#### **Tarrant County Medical Examiner's Office**

Attn: Records Custodian  
200 Feliks Gwozdz Pl.  
Fort Worth, TX 76104-4919

### *Who can get copies of the reports?*

Documents are routinely provided to law enforcement, the district attorney, special government agencies, and the hospital providing treatment at the time of death. One copy of the examination report, investigative findings, and toxicology report will be provided at no cost to the immediate next of kin upon written request.

As discussed in the earlier question, “*Are my loved one’s reports and test results protected under the Health Insurance Portability and Accountability Act (HIPAA)?*,” [Section §552.021 of the Texas Public Information Act](#) also mandates that our records be made available to any citizen upon request.

## *Can I get copies of the photos of my deceased relative?*

**Yes.** Scene photographs and/or postmortem examination photographs may be released upon presentation of a properly executed medical release or 'next of kin' letter, which must contain all of the following elements to be considered valid:

1. The requestor's full name, address, and contact information
2. A statement indicating the requestor is the nearest legal next of kin and providing his/her relationship to the decedent
3. The specific information the requestor is seeking (e.g., all autopsy and/or scene photographs)
4. The requestor's notarized signature affixed to the letter
5. A copy of the requestor's driver license

Non-family members can make a request for the scene and autopsy photographs upon presentation of a properly executed and notarized medical release from the legal next-of-kin. All requests received from either family or non-family members will be reviewed on a case-by-case basis.

## *What if the next of kin cannot afford the costs of the funeral?*

An application for indigent cremation may be made with the **Tarrant County Human Services Department** (see page 9 for contact information). Proof of indigent status may be required. Tarrant County Human Services is only able to provide assistance to families whose loved one(s) have died within Tarrant County. A funeral home may assist the family with the application process for the county cremation program.

## *What is required for cremation?*

The [Texas Health and Safety Code, Section §716.004](#) prohibits a crematory establishment from cremating human remains within 48 hours of the time of death indicated on the death certificate, unless the waiting period is waived in writing by (1) the medical examiner of the county in which the death occurred or (2) a court order. In compliance with this statute, the medical examiner has established a policy outlining the process of requesting a waiver under Subsection (a) during regular business hours and outside of regular business hours, including weekends and holidays.

In all other cases, after the mandatory waiting period the crematory is required to obtain a permit from the county medical examiner. If the death is not a medical examiner's case, the Medical Examiner requires the funeral home to provide a death certificate before the Medical Examiner can issue a cremation permit.

# Accreditations

Accreditation Council for  
Graduate Medical  
Education

515 North State Street  
Suite 2000  
Chicago, IL 60654

Phone 312.755.5000  
Fax 312.755.7498  
www.acgme.org

3/10/2016

Nizam Peerwani, MD  
Director, Forensic Pathology Residency Program  
Tarrant County Medical Examiner  
200 Feliks Gwozdz Place  
Fort Worth, TX 76104



Dear Dr. Peerwani,

The Residency Review Committee for Pathology, functioning in accordance with the policies and procedures of the Accreditation Council for Graduate Medical Education (ACGME), has reviewed the information submitted regarding the following program:

Forensic pathology

Tarrant County Medical Examiner Program  
Tarrant County Medical Examiner's Office  
Fort Worth, TX

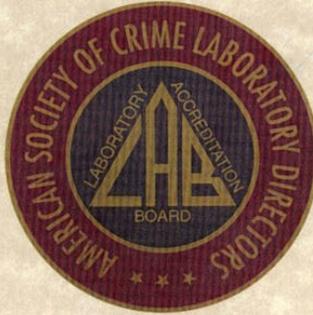
Program 3104822087

Based on the information available to it at its recent meeting, the Review Committee accredited the program as follows:

Status: Continued Accreditation  
Maximum Number of Residents: 1  
Effective Date: 02/04/2016

The Review Committee commended the program for its demonstrated substantial compliance with the ACGME's Program Requirements and/or Institutional Requirements without any new citations.

The ACGME must be notified of any major changes in the organization of the program. When corresponding with the ACGME, please identify the program by name and number as indicated above. Changes in participating sites and changes in leadership must be reported to the Review Committee using the ACGME Accreditation Data System (ADS).



**American Society of Crime Laboratory Directors  
Laboratory Accreditation Board**

*declares to all Advocates of Truth, Justice and the Law that the  
management and technical operations of the*

**Tarrant County Medical Examiner's Office  
Forensic Laboratory Services  
Breath Alcohol Calibration Program**

200 Feliks Gwozdz Place  
Fort Worth, Texas 76104

*have been found through assessment to meet the requirements of  
ISO/IEC 17025:2005  
"General Requirements for the Competence of Testing and Calibration Laboratories"  
the ASCLD/LAB-International Supplemental Requirements for  
Breath Alcohol Calibration Laboratories: 2007  
and all other requirements of the*

**ASCLD/LAB-International**

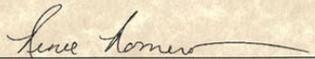
*program, and is granted this*

**Certificate of Accreditation**

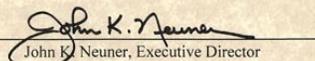
*in the field of*

**Forensic Science Calibration**

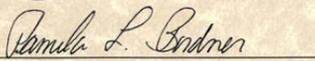
*for the categories of calibration listed on the corresponding  
Scope of Accreditation*



Renee Romero, ASCLD/LAB Chair



John K. Neuner, Executive Director



Pamela L. Bordner, Accreditation Program Manager



Troy Hamlin, Accreditation Program Manager

Certificate Number

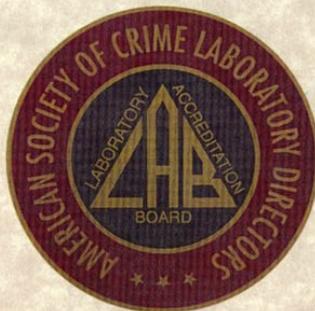
**ALI-012-C**

*granted this*

**17th day of June, 2014**

*which expires on the*

**16th day of June, 2019**



**American Society of Crime Laboratory Directors  
Laboratory Accreditation Board**

*declares to all Advocates of Truth, Justice and the Law that the  
management and technical operations of the*

**Tarrant County Medical Examiner's Office  
Forensic Laboratory Services**

200 Feliks Gwozdz Place  
Fort Worth, Texas 76104

*have been found through assessment to meet the requirements of  
ISO/IEC 17025:2005*

*"General Requirements for the Competence of Testing and Calibration Laboratories"  
the ASCLD/LAB-International Supplemental Requirements for Testing Laboratories: 2011  
and all other requirements of the*

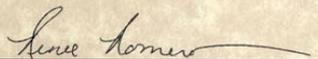
**ASCLD/LAB-International**  
*program, and is granted this*

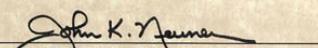
**Certificate of Accreditation**

*in the field of*

**Forensic Science Testing**

*for the categories of testing listed on the corresponding  
Scope of Accreditation*

  
Renee Romero, ASCLD/LAB Chair

  
John K. Neuner, Executive Director

  
Pamela L. Bordner, Accreditation Program Manager

  
Troy Hamlin, Accreditation Program Manager

*Certificate Number*

**ALI-348-T**

*granted this*

**17th day of June, 2014**

*which expires on the*

**16th day of June, 2019**



# NATIONAL ASSOCIATION OF MEDICAL EXAMINERS

Grants Full Accreditation

of

Tarrant County Medical Examiner Office - Fort Worth, Texas

Inspected by and meets the Standards, Inspection, and Accreditation Criteria established by the National Association of Medical Examiners for providing and operating an effective Medicolegal Death Investigative System

Accreditation is granted for the period January 8, 2015 to January 8, 2020

GIVEN THIS 1<sup>st</sup> day of June, 2015



*Mary Nashelsky*

President

*J. Scott Deaton, MD*

Secretary-Treasurer

*Bakeway M.D.*

Inspector

*[Signature]*

Chairman of Inspections Committee

# History



The Tarrant County Commissioners' Court establishes the Tarrant County Medical Examiner's Office. T.C. Terrell, M.D. is named Chief Medical Examiner.



Feliks Gwozdz, M.D. is named Chief Medical Examiner.



After Dr. Gwozdz's unexpected death, Nizam Peerwani, M.D. is appointed Chief Medical Examiner.



The first countywide central morgue is established on the campus of the Texas College of Osteopathic Medicine (now University of North Texas Health Science Center).



Toxicology and histology laboratories are added; shortly afterwards, forensic dentistry is added to the office to assist in human identification.



Parker County officially joins the Medical Examiner's Office, creating the Tarrant County Medical Examiner's District.



Denton County joins the Tarrant County Medical Examiner's District; the Medical Examiner's Office moves into a new, state-of-the-art facility at 200 Feliks Gwozdz Place, renamed in honor of the late Dr. Gwozdz.



The TCME District provides the health scene investigation and medical examiner services for McLennan County in the aftermath of the Branch Davidian incident at Mt. Carmel, Texas.



A full-time, dedicated Forensic Anthropologist position is filled, making the TCME District the only such office in Texas with a full-time Forensic Anthropologist on staff.



The Human Identity Section is established at the TCME District, comprising a Forensic Odontologist, a Forensic Anthropologist, and a Latent Print Fingerprint Examiner.



Johnson County joins the Tarrant County Medical Examiner's District.



Construction is completed on new building expansion.



Renovation of the old building is completed, expanding administrative areas and classroom facilities.

# TCME Staff



Denika Adams



Philip Adams



Cathy Adolph



Reza Alaeddini



Dana Austin



Jamie Becker



Becky Beshay



Jonathan Bishop



Madison Brannan



John Briggs



Robert Corley



Christina Coucke-Garza



Christina Danforth



Susan Daniel



Glynn Dill



Joe D. English



ShaVonda K Epps



Cynthia Esparza



Kyle Finney



Michael Floyd



Richard Fries



Dayna George



Tasha Greenberg



Vicki Hall



Kristen Hammonds

# TCME Staff



John Harris



Leanne Hazard



Chris Heartsill



Burshauna Hill



Jeff Honeycutt



Susan Howe



Ayman Itani



Robert Johnson



Deatra Keele



Marsy Key



Rebecca Klein



Anne Koettel



Heather Kramer



Marc Krouse



Beryl Landry



Carol Lawson



Peggy Le



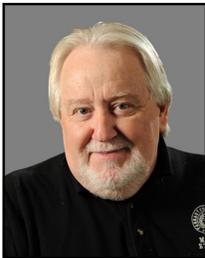
Connie Lewis



Jun Lumadilla



Aria McCall



Jimmy McDonald



Jamie McKinney



Roger Metcalf



Barrie Miller



Michelle O'Neal

# TCME Staff



Tamikka Nelson



Constance Patton



Nizam Peerwani



Tracye Poirier



Michael Pollard



Ronnie Redic



Amy Renfro



Larry Reynolds



Susan Roe



Kathryn Scott



Ron Singer



Sarah Skiles



Marc A Smiley



Christie Smith



Don Smith



Mike Smith



Kira Tillman



Tracy Vancil



Bill Walker



LeRon Warren



Cheryl Wheeler



Christopher White



Steve White



Tarr Jae Wilson



Traci Wilson

# Departments

## Medical Examiners

Nizam Peerwani, M.D.

*Chief Medical Examiner*

Marc A. Krouse, M.D.

*Deputy Chief Medical Examiner*

Susan J. Roe, M.D.

*Deputy Medical Examiner*

Tasha Z. Greenberg, M.D.

*Deputy Medical Examiner*

Richard C. Fries, D.O.

*Deputy Medical Examiner*

Denika Adams, D.O.

*Deputy Medical Examiner*

Barrie Miller, M.D.

*Forensic Fellow*

## Administration

Nizam Peerwani, M.D.

*Chief Medical Examiner*

Ronald L. Singer, M.S.

*Technical & Administrative Director*

D. Chris Heartsill, B.S.

*Quality Control Manager*

Tracye Poirier, M.B.A.

*Business Manager*

Carol A. Lawson

*Exec. Asst./Public Information Officer*

Dayna L. George

*Administrative Assistant IV*

## Human Identification Laboratory

Roger Metcalf, D.D.S.

*Chief of Identification Services*

Dana Austin, Ph.D.

*Senior Forensic Anthropologist*

ShaVonda Jones

*Latent Fingerprint Examiner*

## Histology

Mike Smith

*Forensic Histotechnician*

Joe English, Jr.

*Forensic Histotechnician*

Christy Humphries

*Forensic Histotechnician*

# Forensic Death Investigation

## Tarrant County Investigations

Michael Floyd, B.S.	<i>Chief Forensic Death Investigator</i>
John Briggs	<i>Supervisory Investigator</i>
Jimmy McDonald	<i>Forensic Death Investigator II</i>
Robert Corley	<i>Forensic Death Investigator II</i>
Stephen White	<i>Forensic Death Investigator II</i>
Amy Renfro, B.S.	<i>Forensic Death Investigator I</i>
Kyle Finney, B.A.	<i>Forensic Death Investigator I</i>
Michael Pollard, B.A.S.	<i>Forensic Death Investigator I</i>
Philip Adams	<i>Forensic Death Investigator I</i>
Donald Smith	<i>Forensic Death Investigator I</i>
Jamie Ables	<i>Investigative Clerk</i>
Tracy Vancil, B.S.	<i>Investigative Clerk</i>
Christina Danforth	<i>Investigative Clerk</i>
Madison Brannan	<i>Investigative Clerk</i>

## Denton County Investigations

Troy Taylor, B.S.	<i>Senior Forensic Death Investigator</i>
Bill Mills, Jr., B.S.	<i>Forensic Death Investigator</i>
Robert Murphy	<i>Forensic Death Investigator</i>
Julie Carriker, R.N.	<i>Forensic Death Investigator</i>
Tim Dial	<i>Forensic Death Investigator</i>
Jennifer Hernandez, B.S.	<i>Forensic Death Investigator</i>
Lindsay Hendrix	<i>PT Forensic Death investigator</i>
Andrea Crocker	<i>Executive Assistant</i>

## Forensic Death Investigation *continued*

### Johnson County Investigations

Gary Morris	<i>Senior Forensic Death Investigator</i>
Jamie Smith	<i>Forensic Death Investigator</i>
Paul Brown	<i>Forensic Death Investigator</i>
Logan Littlejohn	<i>Investigative Clerk</i>

### Parker County Investigations

Bryan Wright	<i>Senior Forensic Death Investigator</i>
Kevin Lanham	<i>Forensic Death Investigator</i>
Rick Clark	<i>Forensic Death Investigator</i>
Bob Presney	<i>Forensic Death Investigator</i>
Heather Casey	<i>Forensic Death Investigator</i>
Danielle Huffman	<i>Forensic Death Investigator</i>

## Drug Chemistry and Toxicology

Robert Johnson, Ph.D.	<i>Chief Toxicologist</i>
Aria McCall, B.S.	<i>Senior Toxicologist/Technical Lead</i>
Beryl Landry, B.S.	<i>Senior Forensic Toxicologist</i>
Connie Lewis, B.S.	<i>Senior Forensic Toxicologist</i>
Cheryl Wheeler, B.S.	<i>Senior Forensic Toxicologist</i>
Leanne Hazard, M.S.	<i>Senior Forensic Toxicologist</i>
Katie Scott, B.S.	<i>Forensic Toxicologist</i>
John Harris, M.S.	<i>Sr. Forensic Chemist/Technical Lead</i>
Jonathan Bishop, B.S.	<i>Senior Forensic Chemist</i>
Christina Coucke-Garza, M.S.	<i>Senior Forensic Chemist</i>
Michelle O'Neal, B.S.	<i>Senior Forensic Chemist</i>
Sarah Skiles, B.S.	<i>Sr. Forensic Chemist/Technical Lead</i>

## Morgue and Evidence Services

Traci Wilson	<i>Director of Morgue/Evidence Services</i>
Ronnie Redic	<i>Senior Autopsy Technician</i>
Glynn Dill	<i>Autopsy Technician</i>
Cynthia Esparza	<i>Autopsy Technician</i>
Esther Gutierrez	<i>Autopsy Technician</i>
Burshauna Hill	<i>Autopsy Technician</i>
Marc Smiley	<i>Autopsy Technician</i>
LeRon Warren	<i>Autopsy Technician</i>
Christopher White	<i>Autopsy Technician</i>

## Criminalistics

Susan Howe, Ph.D.	<i>Crime Laboratory Director</i>
Constance Patton, B.S.	<i>DNA Technical Lead, CODIS Admin.</i>
Heather Kramer, M.S.	<i>Sr. Forensic Biologist/CODIS Alternate</i>
Peggy Le, B.S.	<i>Senior Forensic Biologist</i>
Kristen Hammonds, B.S.	<i>Senior Forensic Biologist</i>
Rebecca Klein, M.S.	<i>Forensic Biologist</i>
Kira Tillman, B.S.	<i>Forensic Biologist Specialist</i>
Reza Alaeddini, Ph.D.	<i>Senior Criminalist</i>
Vicki Hall, M.S.	<i>Sr. Trace Analyst/Technical Lead</i>
Anne Koettel, M.S.	<i>Senior Trace Analyst</i>
Jamie Becker, B.S.	<i>Sr. Firearm &amp; Toolmark Examiner, Technical Lead</i>
Charles M. Clow, M.A.	<i>Sr. Firearm &amp; Toolmark Examiner</i>
William Walker	<i>Latent Fingerprint Examiner / Technical Lead</i>
Larry Reynolds	<i>Forensic Photographer</i>

## Secretarial Services

Carol A. Lawson

*Exec. Asst./Public Information Officer*

Cathy Adolph

*Medical Secretary/Transcriptionist*

Becky Beshay

*Medical Secretary/Transcriptionist*

Susan Daniel

*Medical Secretary/Transcriptionist*

Deatra Keele

*Medical Secretary/Transcriptionist*

Tamikka Nelson

*Medical Secretary/Transcriptionist*

Tarr Jae Wilson

*Records Manager*

Ayman Itani

*Records Secretary*

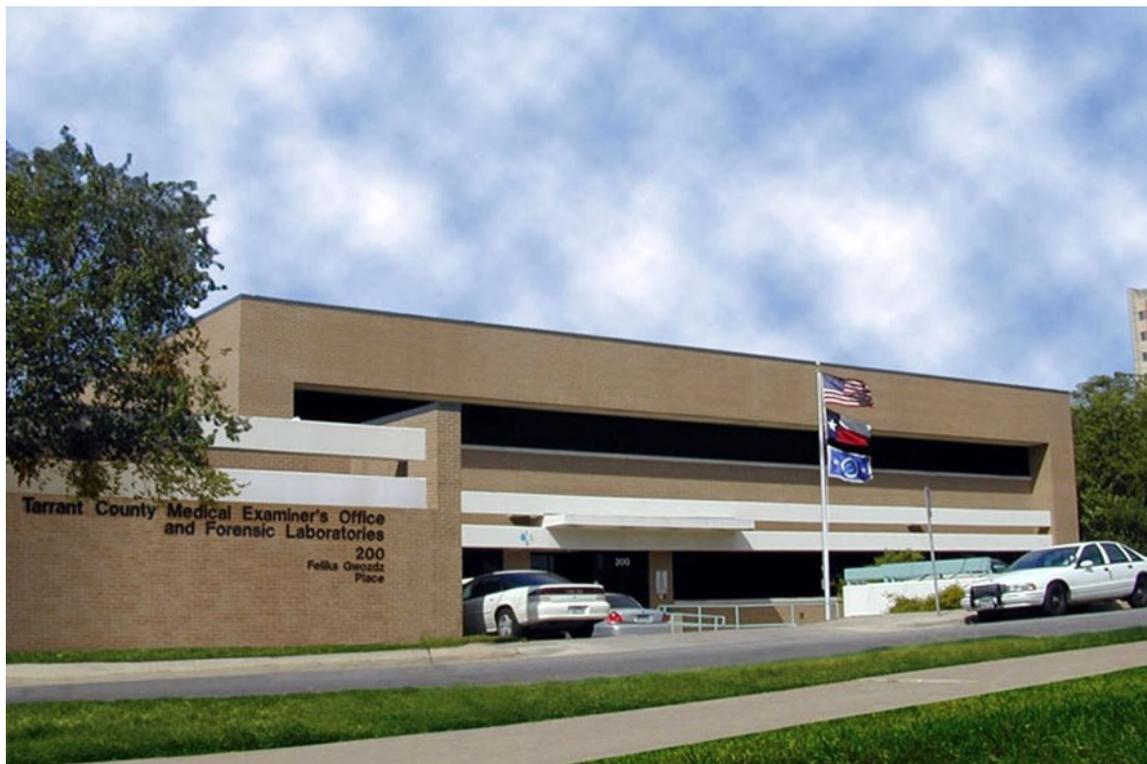
Christie Smith

*Vital Records Coordinator*

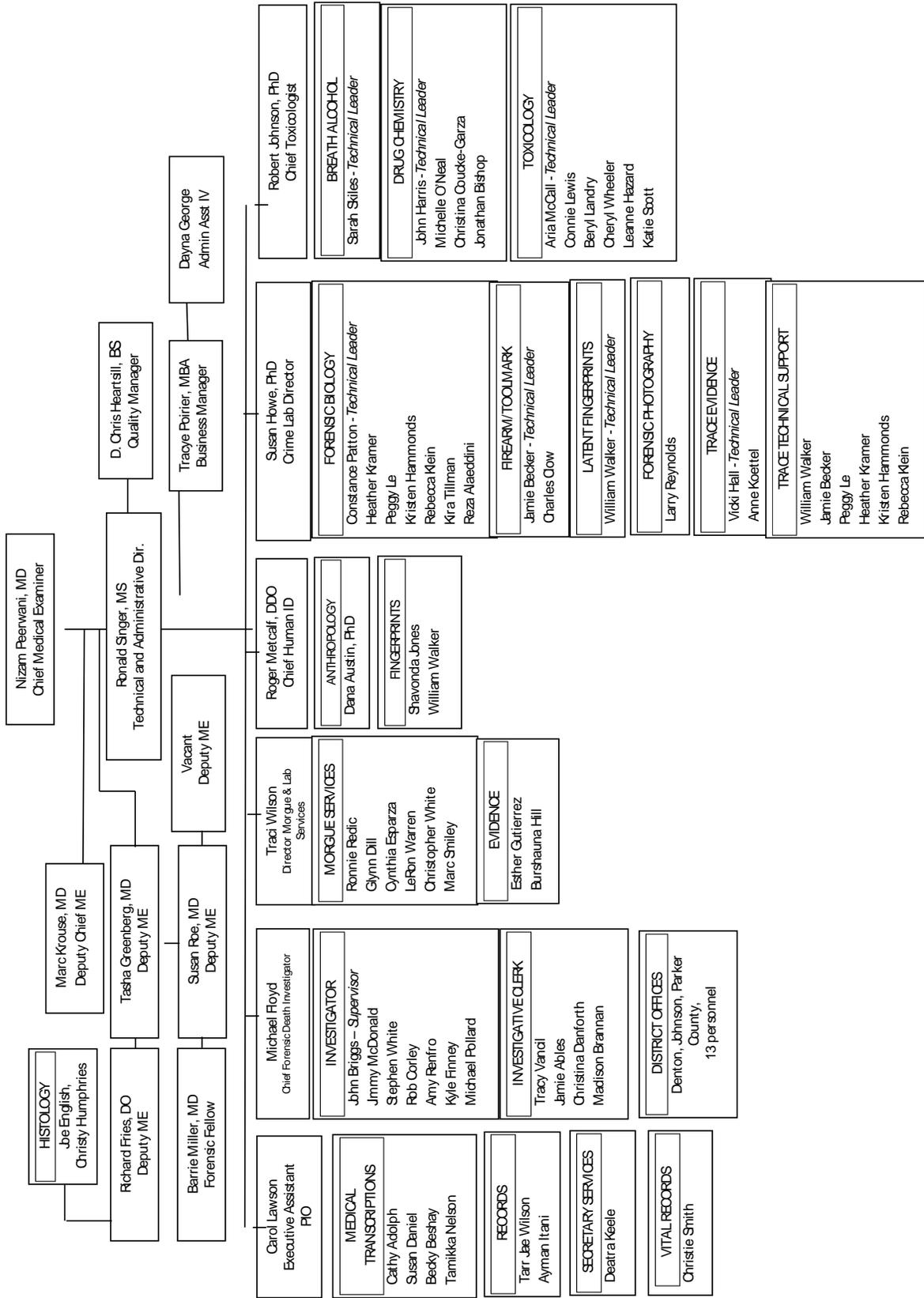
## Facility Maintenance

Jun Lumadilla

*Building Superintendent*



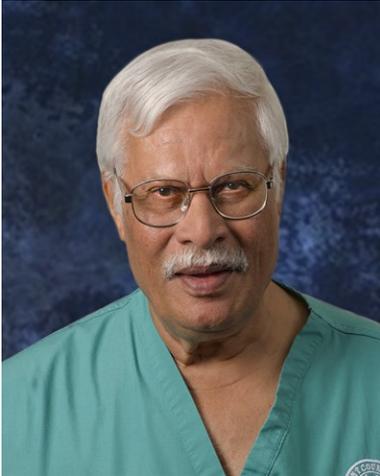
# Tarrant County Medical Examiner's Office and Forensic Laboratories



# Medical Examiners



## Nizam Peerwani, M.D., Chief Medical Examiner



Dr. Peerwani is a graduate of the American University of Beirut (M.D. in 1976). He completed his residency in pathology at Baylor University Medical Center in Dallas, Texas, and is board certified in Anatomic, Clinical, and Forensic Pathology.

Currently, Dr. Peerwani is the Chief Medical Examiner for Tarrant, Denton, Johnson, and Parker counties in the state of Texas, and has held this position since July 1979. He is actively involved in forensic death investigation for his jurisdiction and routinely testifies in both civil and criminal trials. He has also served as an Associate Professor of Pathology at UNT Health Science Center in Fort Worth from 1979 to 2004 and on the editorial board of the *American Journal of Forensic Medicine and Pathology* from 1992 to 2009, as well as on the National Association of Medical Examiner's Accreditation Committee from 1990 to 1995. He is an advocate of child safety and served on the first Texas Child Fatality Review Committee as an expert in forensic medicine from 1995 to 2000. His major investigations include the Delta Airline Flight 1141 crash at the Dallas-Fort Worth International Airport in 1988, the mass killings and fire deaths in McLennan County in 1993, and the Wedgewood Baptist Church mass shooting incident in September 1995 in Fort Worth, Texas.

In 1993, he led his team to investigate the mass killing and fire deaths at Mt Carmel, in the outskirts of Waco in McLennan County, after a long siege of David Koresh's religious cult compound by the Federal Bureau of Investigation, and later testified at the federal trial in San Antonio, Texas.

As an advocate for human rights, he serves as an expert consultant for Physicians for Human Rights. He has completed assignments for this organization in Rwanda, Indonesia, Iraq, Afghanistan, Israel, and Libya, investigating genocide and human rights violations under the auspices of the United Nations Tribunal. He testified in the genocide trial of George Rutaganda at the International Criminal Tribunal for Rwanda (United Nations) in Arusha, Tanzania. Additionally, he was the advance team member in the war crimes investigation in the Srebrenica killings in Bosnia in 1995 and set up a temporary morgue facility in Tuzla, Bosnia-Herzegovina. He also investigated the killings of 34 inmates at the Miquel Castro-Castro Prison by the National Peruvian Police in March 2001 and later testified at Inter-American Court of Human Rights in 2006 in San Salvador. In 2015, he and his colleagues led the investigation at the Tarrant County Medical Examiner's Office on behalf of Physicians for Human Rights and Human Rights Watch, and filed a report on the investigation of torture and killings in the Syrian Detention Camps by the current regime of President Bashar Assad.

Appointed by Governor Rick Perry in 2009, Dr. Peerwani currently serves on the Texas Forensic Science Commission. He also serves on the expert panel of Texas State Fire Marshal's Office.



## Marc A. Krouse, M.D., Deputy Chief Medical Examiner



Dr. Krouse graduated in 1977 from the University of Texas Southwestern Medical School, then and now a major center of medical research and patient care, in Dallas, Texas. Dr. Krouse entered a four-year residency in Anatomic and Clinical Pathology at Baylor University Medical Center in Dallas. During residency, in 1978, he began working part time at the Tarrant County Medical Examiner. After Dr. Gwozdz's sudden death in 1979, he was sworn in as Medical Examiner along with Dr. Nizam Peerwani. He completed residency in 1981. Dr. Krouse was certified by the American

Board of Pathology in Anatomic and Clinical Pathology in 1981 and earned Special Competency in Forensic Pathology in 1984.

Dr. Krouse is a Fellow of the American Academy of Forensic Sciences and a Member and past Board of Directors member of the National Association of Medical Examiners. He has served on a number of committees in both organizations. He was Program Director of the 1993 annual meeting of NAME. He has made many peer-reviewed platform and poster presentations in annual meetings of both organizations. Dr. Krouse has taught medical and graduate students of the University of North Texas Health Sciences Center in Fort Worth, pathology and other residents from numerous hospital programs, attorneys, police, fire and paramedic workers, nurses and nursing students and the public. A program teaching recovery of buried bodies and evidence has been a part of this teaching effort. Dr. Krouse worked with US Forest Service and other archaeologists and anthropologists to analyze skeletal pre-Columbian human remains at the Museum of Northern Arizona in Flagstaff, Arizona. A continuing education program has presented in annual forensic sciences updates for more than a decade.

Dr. Krouse has been a supporter and member of a number of community programs. He worked with the Boy Scouts as an adult leader in the local troop and district. He has served on the Board of the Boys and Girls Clubs of Fort Worth and volunteered for many fundraisers for community organizations and foundations.



## Susan J. Roe, M.D., Deputy Medical Examiner



Dr. Roe graduated from the University of Texas at Arlington with a Bachelors of Science in Nursing (1977) and from the University of Texas Health Science Center at Houston Medical School with an M.D. (1983). In 1988, she completed her post graduate training in Anatomic Pathology, Clinical Pathology, and Forensic Pathology at Indiana University, Hennepin County Medical Center, and the Hennepin County Medical Examiner's Office.

Dr. Roe is board certified in anatomic, clinical, and forensic pathology. She worked as a Forensic Pathologist at the Hennepin County Medical Examiner's Office, the Ramsey County Medical Examiner's Office, and the Minnesota Regional Medical Examiner's Office from 1988 through 2011. Additionally, she was a Bush Foundation Medical Fellow, Class of 2003, and worked at the Jesse E. Edwards Registry of Cardiovascular Disease from 2005 through 2011. Dr. Roe joined the Tarrant County Medical Examiner's Office in December 2011 as a Deputy Medical Examiner.

## Tasha Z. Greenberg, M.D., Deputy Medical Examiner



Dr. Greenberg earned her Bachelors of Science in Kinesiology from the University of California—Los Angeles in 1989, after which she attended graduate school at Northwestern University in Chicago, Illinois, where she majored in neuroscience prior to her matriculation to medical school. Upon graduating from the Baylor College of Medicine in 1996, Dr. Greenberg completed her residency in Pathology. Her first year of study was at St. Joseph's Hospital and Medical Center in Phoenix, Arizona, after which she returned to Baylor for the remaining four years, with her final year concentrated on Pediatric Pathology under the tutelage of Edmund Donoghue, M.D., at the Cook County Medical Examiner's Office.

During her six-year tenure at the Baltimore Medical Examiner's Office in Maryland, Dr. Greenberg was active in child fatality review at the local and state levels. She also conducted lectures and training for local universities as well as the medical examiner's homicide course, speaking primarily on pediatric forensics. In April 2008, Dr. Greenberg accepted the position of Medical Director of the Autopsy Service for the University of Texas Southwestern Medical School at Parkland Medical Center, and in September 2012 she was appointed a deputy medical examiner for the Tarrant County Medical Examiner's Office.



## Richard C. Fries, D.O., Deputy Medical Examiner



After graduating with honors from the University of Texas at Dallas with a Bachelors of Science in Biology (2004), Dr. Fries went on to earn his D.O. from the University of North Texas Health Science Center—Texas College of Osteopathic Medicine in 2008. He completed his residency in Anatomic and Clinical Pathology at the Virginia Commonwealth University Health System, Medical College of Virginia Hospitals.

In July 2012, Dr. Fries accepted a fellowship in Forensic Pathology at the Tarrant County Medical Examiner’s Office. After successfully completing this one-year program, he took and passed the board exam in Forensic Pathology.

Dr. Fries joined the staff of the Tarrant County Medical Examiner’s Office in July 2013. He is a member of the American Academy of Forensic Sciences (AAFS) and the National Association of Medical Examiners (NAME).

## Denika Adams, D.O., Deputy Medical Examiner



Dr. Adams is a certified Pathologist in both Anatomical and Clinical Pathology and Forensic Pathology, and a licensed physician in both Texas and Illinois. She graduated from Baylor University in 2004 with a Bachelor of Science degree in Forensic Science with minors in both Biology and Chemistry. She attended the University of North Texas Health Science Center – Texas College of Osteopathic Medicine and earned her D.O. in 2009. Dr. Adams completed her residency in Pathology at the University of Texas Health Science Center at San Antonio in June 2013. She accepted a fellowship at the Dallas County Medical Examiner’s Office and completed the program in July, 2014.

In August of 2014, Dr. Adams began her career as an Assistant Medical Examiner at the Office of the Medical Examiner County of Cook in Chicago, Illinois. During her time at Cook County, she was part of the Cook County Child Death Review Team B and the Cook County Medical Examiners Disaster Response Team, and was a Radiology Quality Assurance/Peer Review Coordinator. In August of 2016, Dr. Adams was appointed to the position of Deputy Medical Examiner at Tarrant County Medical Examiner’s Office in Fort Worth, Texas.



# Administration

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## Ronald Singer, M.S., Technical & Administrative Director



Ronald Singer received his Bachelors of Science from Tulane University and his Masters of Science from Loyola University of New Orleans. A forensic scientist since 1972, he has served as President of the International Association of Forensic Sciences. He is also a Distinguished Fellow and Past President of the American Academy of Forensic Sciences, a Distinguished Member and Past President of the Association of Firearm and Toolmark Examiners, an Emeritus Member and Past Secretary of the American Society of Crime Laboratory Directors, and a member of numerous other forensic associations and committees. He has been an invited speaker on forensic issues throughout the U.S., Hungary, Bosnia, England, Portugal, Turkey, the Maldives, Sri Lanka, the Czech Republic, Lebanon, and the United Arab Emirates.

Mr. Singer is a recipient of the American Academy of Forensic Sciences Criminalistics Section Outstanding Service award, the Association of Firearm and Toolmark Examiners Member of the Year award, the Gold Medal award of the Mediterranean Academy of Forensic Sciences, and the Distinguished Fellow award from the American Academy of Forensic Sciences.

## Chris Heartsill, B.S., Quality Control Manager



Chris Heartsill received his Bachelors of Science in Chemistry from East Central University in 1991. He has been working in analytical chemistry for over twenty years with more than 19 years of forensic toxicology experience, including the areas of human performance forensic toxicology and postmortem forensic toxicology. Prior to coming to Tarrant County in 2013, he served as an analytical chemist, toxicologist, quality manager, and breath-testing technical supervisor.

Chris is currently certified by the American Board of Forensic Toxicology as a Forensic Toxicology Specialist. He is an active member of the Society of Forensic Toxicologists, the Scientific Working Group for Toxicology, and the Association of Forensic Quality Assurance Managers. Chris is also actively involved in the accreditation of forensic laboratories through volunteer activities with the American Society of Laboratory Directors/Laboratory Accreditation Board.

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## Tracye Poirier, M.B.A., Business Manager



Tracye Poirier received her Bachelors of Science degree in Chemistry from the University of Texas at Arlington. She came to work here in 2000 as a Senior Forensic Toxicologist. She also served as a Senior Forensic Chemist before assuming her current role as the Business Manager. Her background in the sciences provides her with unique insight into managing a Medical Examiner's office.

Ms. Poirier earned her M.B.A. degree with an emphasis in Strategic Leadership in April 2010 from the University of Dallas. She is a member of the American Academy of Forensic Sciences and the Southwestern Association of Toxicologists.

## Carol A. Lawson, Executive Assistant/Public Information Officer



Accepting employment with the Tarrant County Medical Examiner in 2005, Ms. Lawson currently serves as the Executive Assistant to the Chief Medical Examiner. In this role she schedules pathologists for morgue duty, arranges court appearances and professional engagements for the Chief Medical Examiner and his staff, supervises Secretarial Services, and assists families, law enforcement agents, and attorneys with their concerns and inquiries. In addition to these responsibilities, she also serves as the Public Information Officer of the Tarrant County Medical

Examiner's District, fielding questions from the media and releasing information to the public as necessary. Ms. Lawson has reaffirmed her dedication through continued professional development in Public Information Officer awareness, leadership, and influence, as well as training with the FBI-Law Enforcement Executive Leadership Association (FBI-LEEDA).

# Laboratories

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## Susan R. Howe, D.V.M., Ph.D., Crime Laboratory Director



Dr. Howe received a B.S. and a Doctor of Veterinary Medicine degree from the University of Illinois and a Ph.D. in Toxicology from Texas A & M University. A forensic scientist since 1996, she is an active member of the American Academy of Forensic Sciences, the Society of Forensic Toxicologists, and the Southwestern Association of Forensic Toxicologists.

Dr. Howe is board certified in Forensic Toxicology by the American Board of Forensic Toxicology and has published a number of scientific articles in peer-reviewed journals in the field of molecular toxicology.

## Roger Metcalf, D.D.S., J.D., Chief of Human Identification Services



Roger Metcalf is a graduate of Baylor University and Baylor College of Dentistry. He completed a fellowship in Forensic Odontology at the Center for Education and Research in Forensics at the University of Texas Health Science Center at San Antonio Dental School under Dr. David Sinn. He received his J.D. degree from Texas Wesleyan University School of Law in 2009.

Dr. Metcalf has been a member of the Tarrant County Medical Examiner's Mass Fatality Dental Identification Team since it was established in 1980, and has participated in the identification of victims from the Delta 191 and 1141 crashes at D/FW Airport and from the Mt. Carmel incident in Waco, Texas. Since joining the Tarrant County Medical Examiner's Office in 2004, Dr. Metcalf has supervised the forensic identification of more than 300 unidentified bodies per year.

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## Robert Johnson, Ph.D., Chief Forensic Toxicologist



Dr. Johnson graduated from the University of Oklahoma with a Ph.D. in Analytical Chemistry in 2004. Certified as a forensic toxicologist by the American Board of Forensic Toxicology, he joined the Tarrant County Medical Examiner's Office in 2011. He is active in several professional societies, including the Society of Forensic Toxicologists, the American Academy of Forensic Sciences, and the Southwestern Association of Toxicologists.

Dr. Johnson has published over 50 scientific articles in his career, all of which deal specifically with forensic toxicology.

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## Traci Wilson, Chief of Morgue & Laboratory Services



Traci Wilson began her employment with the Tarrant County Medical Examiner's Office as a Forensic Autopsy Technician in 1995. Prior to moving to Fort Worth, she had worked in Bossier City, Louisiana as a Forensic Pathologist Assistant. Ms. Wilson attended Northeast Louisiana University Monroe (ULM), where she majored in Business Administration/Business Law.

In 2009, Ms. Wilson assumed the duties of Chief of Morgue/Laboratory Services, in which role she continually develops and implements new policies to streamline recordkeeping and safeguard

# Forensic Death Investigation

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## Michael Floyd, B.S., Chief Forensic Death Investigator - Tarrant County

Michael Floyd began working for the Tarrant County Medical Examiner's District in 1990 as a Medical Investigator assigned to Parker County. He transferred to Tarrant County in 1993. In 1997, he was promoted to Senior Forensic Investigator, became the Supervisory Investigator in 2009, and was appointed Chief Forensic Investigator in 2010.



Prior to his employment at TCME, Michael was a Texas-certified EMT-Paramedic for 16 years and spent 35 years as a Texas Peace Officer.

## Troy Taylor, B.S., Senior Forensic Death Investigator - Denton County

Mr. Taylor started his career in 1990 at the Denton County Medical Examiner's Office. After multi-year tenures in Denton and Tarrant County, he transferred back to the Denton office in 2003.



Troy teaches medical examiner law, wound patterning, and decomposition changes for intermediate crime scene classes, as well as for basic peace officer certification classes. He has attended medico-legal death investigation training and psychological profiling schools.

In 2007, Mr. Taylor was promoted to Chief Forensic Death Investigator of Denton County.

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## Gary Morris

### Senior Forensic Death Investigator - Johnson County

Gary Morris began his service with the Johnson County Medical Examiner's Office as a Reserve Investigator in 2006. He served in several positions with the Johnson County Medical Examiner's Office before advancing to his current position as Chief Forensic Death Investigator, a position he has held since 2011.



Mr. Morris has attended forensic death investigation training in Fort Worth, St. Louis, Arizona, and New York.

## Bryan Wright

### Senior Forensic Death Investigator - Parker County

Bryan Wright began his employment with the Tarrant County Medical Examiner's District shortly after Parker County became the first member of the district system in 1986. Mr. Wright worked as a medical investigator for 13 years and was also a peace officer with the Weatherford Police Department during that time, retiring honorably as a Lieutenant in 2009, having earned a Master Peace Officer certification, among other awards and honors, and having completed 60 college hours. He also worked with and administered the Cross Timbers Narcotics Task Force, comprised of 18 member law enforcement agencies, during his time as a medical investigator.



Upon his retirement, Bryan was sought out and hired by the Parker County Sheriff's Office due to his extensive experience and background. He has a cumulative thirty years of peace officer experience.

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# Professional Involvement

## Ronald Singer, M.S., Technical & Administrative Director

Chair, Exhibitor Liaison Committee, American Academy of Forensic Sciences  
Member, Editorial Board, Journal of Forensic Sciences  
Member, Ethics Committee, American Academy of Forensic Sciences  
President (2004-2005), American Academy of Forensic Sciences  
Secretary (1983-1986), American Society of Crime Laboratory Directors  
President (1995-1996), Association of Firearm and Toolmark Examiners  
Chair (2009-2012), Forensic Sciences Foundation  
President (2005-2008), International Association of Forensic Sciences  
Member, North Carolina Forensic Science Advisory Board  
Award of Merit, American Academy of Forensic Sciences  
Distinguished Fellow, American Academy of Forensic Sciences  
Distinguished Service, Criminalistics Section, American Academy of Forensic Sciences  
Emeritus Member, American Society of Crime Laboratory Directors  
Distinguished Member, Association of Firearm and Toolmark Examiners  
Member of the Year, Association of Firearm and Toolmark Examiners  
Gold Medal, Mediterranean Academy of Forensic Sciences

## Roger Metcalf, D.D.S., J.D., Chief of Identification Services

Diplomate, American Board of Forensic Odontology  
Diploma in Forensic Human Identification, Faculty of Forensic and Legal Medicine, RCP  
President (2015), American Society of Forensic Odontology  
Treasurer (2017), American Society of Forensic Odontology  
Executive Secretary (2015–present), Forensic Odontology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology  
Chair (2015), Amicus Brief Committee, American Academy of Forensic Sciences  
Chair (2017), Odontology Section, American Academy of Forensic Sciences  
Chair (past), Certification and Examination Committee, American Board of Forensic Odontology  
Member (past), Board of Directors, Southwestern Association of Forensic Scientists

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## Chris Heartsill, B.S., Quality Control Manager

Former Member, Alcohol Testing Alliance

President Elect (2002-2003), President (2003-2004), and Immediate Past President (2004-2005), Alcohol Testing Alliance

Lead Assessor (2015-present), ANSI-ASQ National Accreditation Board (ANAB)

Technical Assessor (2003-2015), American Society of Crime Laboratory Directors—Laboratory Accreditation Board

Member (2005-2015), Toxicology Discipline Technical Advisory Committee, American Society of Crime Laboratory Directors—Laboratory Accreditation Board

Member, Association of Forensic Quality Assurance Managers in Toxicology

Chair (2012-2015), Quality Control Workgroup; Subcommittee Standards, Practices, and Protocols; Forensic Toxicology Council

Member (2010-2015), Scientific Working Group in Toxicology, Forensic Toxicology Council

Advisor, Quality Control Task Group, Toxicology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Chair (2016-present), Administrative Committee; Alcohol, Drugs, Impairment Division of the National Safety Council

Member (2015-2016), Administrative Committee; Alcohol, Drugs, Impairment Division of the National Safety Council

Member (2014-present), Executive Board; Alcohol, Drugs, Impairment Division of the National Safety Council

Member (2015-2016), Meeting Host Committee, Society of Forensic Toxicologists

Counselor (2000-2002), Southwestern Association of Toxicologists

President (2016-2017; 2003-2004), Southwestern Association of Toxicologists

Immediate Past President (2017-2018; 2004-2005), Southwestern Association of Toxicologists

President Elect (2015-2016; 2002-2003), Southwestern Association of Toxicologists

Historian, Southwestern Association of Toxicologists

Chair (2006-2017), Grant Approval Committee, Southwestern Association of Toxicologists

Member, Texas Association of Crime Laboratory Directors

Regional Award, American Academy of Forensic Sciences

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## Susan R. Howe, Ph.D., Crime Laboratory Director

Member (2013-present), Exhibitor Liaison Committee, American Academy of Forensic Sciences

Member (2016), Meeting Planning Committee, Society of Forensic Toxicologists

Co-Chair (2016), Workshop, Society of Forensic Toxicologists

President (2011-2012), Southwestern Association of Toxicologists

Chair (2014-2015), Certification Committee, Texas Association of Crime Laboratory Directors

Member (2015-present), Education Committee, Texas Association of Crime Laboratory Directors

Secretary (2016-present), Texas Association of Crime Laboratory Directors

## Jamie Becker, Senior Criminalist, Firearm & Tool Mark

Member, Ethics Enforcement Procedures Ad-Hoc Committee, Association of Firearm and Toolmark Examiners

Chairperson (1997-1999), Sickness and Distress, Association of Firearm and Toolmark Examiners

Member (1999-2002), Board of Admissions, Association of Firearm and Toolmark Examiners

Member (1999-2002), Research and Development Ad-Hoc Committee, Association of Firearm and Toolmark Examiners

Member (2002), Training Seminar Host Committee, Association of Firearm and Toolmark Examiners

Treasurer (2002-2005), Association of Firearm and Toolmark Examiners

Member (2007-2009), Nominating Committee, Association of Firearm and Toolmark Examiners

Member (1999-2001), Scientific Working Group on Firearms and Toolmarks

## Charles Clow, Senior Criminalist, Firearm & Tool Mark

Journal Editor (2008-2013), Association of Firearm and Toolmark Examiners

Board Member (2005-2012), Scientific Working Group for Firearms and Toolmarks

Best Research Paper (2004), "Cartilage Stabbing with Consecutively Manufactured Knives: A Response to Ramirez vs. State of Florida," National Firearm Examiner Academy

Distinguished Member Award (2006), Association of Firearm and Toolmark Examiners

Steve Molnar Award (2012), Outstanding Contributions to the Association of Firearm and Toolmark Examiners Journal

Walter J. Howe Award (2012), Outstanding Contributions to the Association of Firearm and Toolmark Examiners Journal

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## Anne Koettel, Senior Trace Analyst

Member, Publications Committee, American Society of Trace Evidence Examiners

## Robert Johnson, Ph.D., Chief Forensic Toxicologist

Member (2004-2011), Life Sciences and Biomedical Engineering Branch, Aerospace Medical Association

Fellow (2011-present), American Board of Forensic Toxicology

Member (2014-present), Toxicology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Member (2008-present), Alcohol, Drugs, and Impairment Division, National Safety Council

Member (2013-present), Executive Board; Alcohol, Drugs, and Impairment Division, National Safety Council

Secretary (2014-present), Alcohol, Drugs, and Impairment Division, National Safety Council

Guest Editor (2016), Journal of Analytical Toxicology, Society of Forensic Toxicologists Special Edition

Member (2005-present), Society of Forensic Toxicologists

Member (2011-2014), Membership Committee, Society of Forensic Toxicologists

Member (2009-present), Southwestern Association of Toxicologists

Immediate Past President (2016-2017), Southwestern Association of Toxicologists

President (2015-2016), Southwestern Association of Toxicologists

President Elect (2014-2015), Southwestern Association of Toxicologists

Superior Accomplishment Award (2010), Office of Aviation Medicine

William E. Collins Publications Award (2006), Office of Aviation Medicine

Charles Tripp Award (2014), Southwestern Association of Toxicologists

James Garriott Award (2013), Southwestern Association of Toxicologists

Excellence in SPE Award (2014), United Chemical

Lloyd Swearingen Outstanding Graduate Student Research Award (2003), University of Oklahoma

## Aria McCall, Technical Lead & Senior Toxicologist

Board Certification (2014-present), American Board of Forensic Toxicology

Member (2015-present), Society of Forensic Toxicologists

Workshop Co-Chair (2016), Society of Forensic Toxicologists

Member (2002-present), Southwestern Association of Toxicologists

Member (2013-present), Membership Committee, Southwestern Association of Toxicologists

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## Sarah Skiles, Senior Forensic Chemist

Member, Board of Directors, Alcohol Testing Alliance

Member, International Association of Chemical Testing

Member, Past Board of Directors, Southwestern Association of Forensic Scientists

Member, Southwestern Association of Toxicologists

## Christina Coucke-Garza, Senior Forensic Chemist

Member, Southwestern Association of Forensic Scientists

Chair (past), Scholarship Committee, Southwestern Association of Forensic Scientists

Chair (present), Nominations Committee, Southwestern Association of Forensic Scientists

Member, Southwestern Association of Toxicologists

Treasurer (past), Southwestern Association of Toxicologists

## Mark Fondren, Senior Forensic Chemist

President (2000), Alcohol Testing Alliance

Chairman (2014-2016) Examinations, American Board of Forensic Toxicology

Member (2014-2016), Executive Board, American Board of Forensic Toxicology

Chairman (2010-2014), Examination, Forensic Toxicology Certification Board

Member (2013-2014), Ethics Committee, Forensic Toxicology Certification Board

Member (2015), Breath Alcohol Task Group Subcommittee, Organization of Scientific Area Committees,  
National Institute of Standards and Technology

Member (2010-2015), Scientific Working Group for Toxicology

## Michelle O'Neal, Senior Forensic Chemist

Certified Technical Assessor, American Society of Crime Laboratory Directors/Laboratory Accreditation  
Board—International

Associate Editor (1995-1997), Southwestern Association of Forensic Scientists

Chairman of the Board (2009-2010), Southwestern Association of Forensic Scientists

Chairperson (2008-2011, 2015), Floyd E. McDonald Scholarship, Southwestern Association of Forensic  
Scientists

Member (1999-2000), Board of Directors, Southwestern Association of Forensic Scientists

Member (2004-2006), Board of Directors, Southwestern Association of Forensic Scientists

Member (2013-2015), Board of Directors, Southwestern Association of Forensic Scientists

President Elect (2007-2008) and President (2008-2009), Southwestern Association of Forensic  
Scientists

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## Connie Lewis, Senior Forensic Toxicologist

Board Certification (2014-present), American Board of Forensic Toxicology

Member (2012-present), Society of Forensic Toxicologists

Member (2007-present), Southwestern Association of Toxicologists

Secretary (2016), Southwestern Association of Toxicologists

James Garriott Award (2014), Southwestern Association of Toxicologists

Excellence in SPE Award (2014), United Chemical

# Annual Development

**G**rowth in the responsibilities of the Tarrant County Medical Examiner's District continued throughout 2017; however, no new positions were approved for the fiscal year.

Our office experienced a change of personnel due to retirement of **Larry Steffler**, Death Investigator II, and **Mike Smith**, Forensic Histotechnician, as well as the relocations of **Mark Fondren**, **Jeff Honeycutt**, **Christina Danforth**, and **Rachel Beck**. Our office hired five new employees as replacements and include **Phillip Adams** and **Donald Smith**, both of who are Forensic Death Investigators; **Madison Brannon**, Investigative Clerk; **Christy Humphries**, Forensic Histotechnician; and **Jonathan Bishop**, Senior Forensic Chemist.

The part-time Family Advocate positions continued at the Tarrant County Medical Examiner's Office in partnership with Trauma Support Services of North Texas (TSSNT). These positions are grant-funded through TSSNT and are presently staffed at the TCMEO by **Kiva T. Harper** and **Teshia Kyser**. The Family Advocate identifies deaths related to trauma (accidents, homicides, and suicides), and refers the families of these decedents to resources and benefits that may assist them in their grief.

The following pages present statistics, beginning with an overview and progressing to more detailed case data, that demonstrate the increasing needs of the communities we serve and the myriad ways in which these needs were met by the Tarrant County Medical Examiner's District in 2017.

# 2017 Statistics



# 2017 Statistical Summary

Reported deaths				12,406	
Jurisdiction terminated				8,648	70%
Jurisdiction accepted					
within the TCME District			3,078		25%
scenes investigated	1,406	46%			
outside the TCME District			680	5%	
Bodies brought to facility	3,946				
Medical procedures				3,746	30%
External examination			1,806	48%	
Partial autopsy			416	11%	
Complete autopsy			1,524	41%	
Deaths certified				3,086	
Natural			1,525	49%	
Accident			905	29.3%	
vehicular		34%			
non-vehicular		66%			
Suicide			405	13.1%	
Undetermined			76	2.5%	
Homicide			163	5.3%	
No Autopsy			12	0.4%	
Human identification				742	
Successfully identified			736	99.3%	
by observation (visual)	11	1.5%			
by fingerprints	664	89.5%			
by odontology	29	3.9%			
by DNA	8	1.1%			
by anthropology	18	2.4%			
by other means	6	0.8%			
Non-Human	1	0.1%			
Pending identification			5	0.7%	

# Manner of Death by County



2017 Tarrant County Deaths		
Manner of Death	Cases	%
Natural	1230	14.9%
Accidental	663	8.0%
Suicide	267	3.2%
Homicide	143	1.7%
Undetermined	60	0.7%
Non-human remains	4	0.0%
Jurisdiction terminated	5913	71.4%
<b>Total</b>	<b>8280</b>	<b>100%</b>

2017 Denton County Deaths		
Manner of Death	Cases	%
Natural	159	6.9%
Accidental	166	7.2%
Suicide	98	4.3%
Homicide	13	0.6%
Undetermined	11	0.5%
Non-human remains	0	0.0%
Jurisdiction terminated	1844	80.5%
<b>Total</b>	<b>2291</b>	<b>100.0%</b>



2017 Parker County Deaths		
Manner of Death	Cases	%
Natural	79	14.3%
Accidental	43	7.8%
Suicide	19	3.4%
Homicide	4	0.7%
Undetermined	2	0.4%
Non-human remains	0	0.0%
Jurisdiction terminated	404	73.3%
<b>Total</b>	<b>551</b>	<b>100.0%</b>

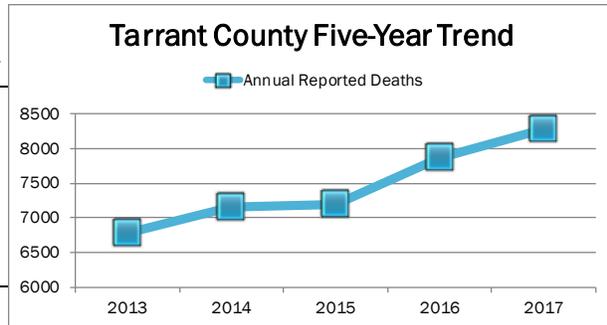
2017 Johnson County Deaths		
Manner of Death	Cases	%
Natural	57	9.4%
Accidental	33	5.5%
Suicide	21	3.5%
Homicide	3	0.5%
Undetermined	3	0.5%
Non-human remains	0	0.0%
Jurisdiction terminated	487	80.6%
<b>Total</b>	<b>604</b>	<b>100%</b>



# Five-Year Trends

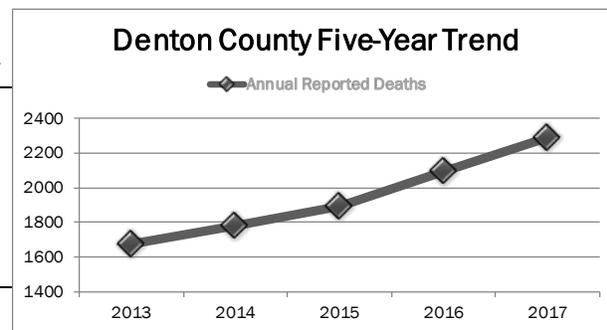
## Tarrant County, 2013-2017

Manner of Death	2013	2014	2015	2016	2017
Natural	900	1006	1060	1200	1230
Accidental	513	579	530	637	663
Suicide	222	214	235	245	267
Homicide	127	85	105	134	143
Undetermined	68	75	79	76	60
Non-human remains	13	6	2	4	4
Jurisdiction terminated	4932	5201	5187	5572	5913
<b>Total</b>	<b>6775</b>	<b>7166</b>	<b>7198</b>	<b>7868</b>	<b>8280</b>



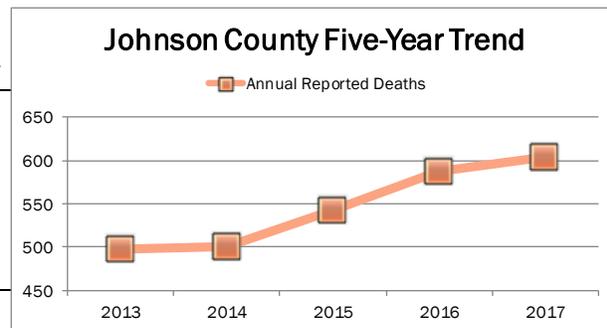
## Denton County, 2013-2017

Manner of Death	2013	2014	2015	2016	2017
Natural	173	163	180	153	159
Accidental	108	103	112	142	166
Suicide	63	60	74	88	98
Homicide	7	7	10	15	13
Undetermined	8	16	11	12	11
Non-human remains	1	0	1	0	0
Jurisdiction terminated	1317	1432	1502	1683	1844
<b>Total</b>	<b>1677</b>	<b>1781</b>	<b>1890</b>	<b>2093</b>	<b>2291</b>



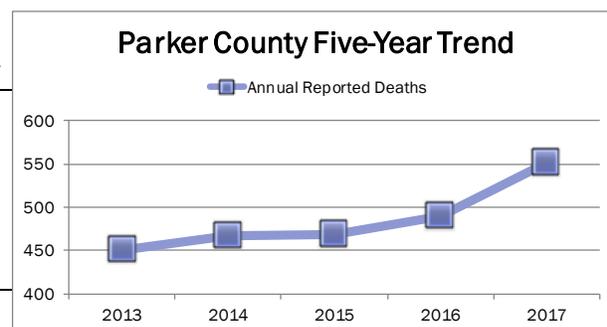
## Johnson County, 2013-2017

Manner of Death	2013	2014	2015	2016	2017
Natural	60	59	72	67	57
Accidental	31	34	25	35	33
Suicide	27	19	13	16	21
Homicide	2	3	4	2	3
Undetermined	6	6	4	1	3
Non-human remains	1	0	0	0	0
Jurisdiction terminated	370	379	424	466	487
<b>Total</b>	<b>497</b>	<b>500</b>	<b>542</b>	<b>587</b>	<b>604</b>



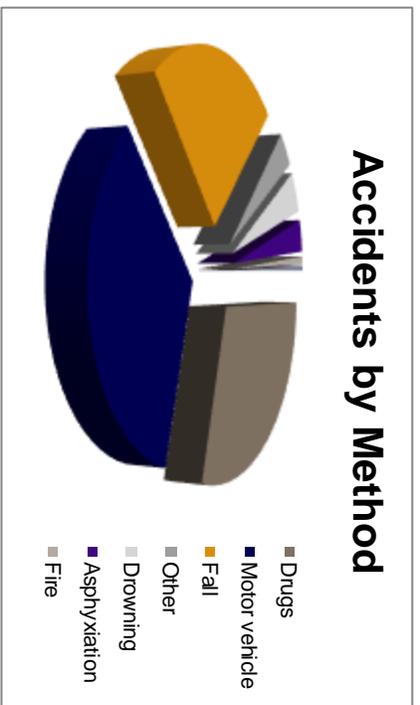
## Parker County, 2013-2017

Manner of Death	2013	2014	2015	2016	2017
Natural	54	72	72	69	79
Accidental	28	31	40	38	43
Suicide	12	14	29	32	19
Homicide	3	3	2	2	4
Undetermined	3	6	4	3	2
Non-human remains	0	0	0	0	0
Jurisdiction terminated	350	341	322	345	404
<b>Total</b>	<b>450</b>	<b>467</b>	<b>469</b>	<b>489</b>	<b>551</b>

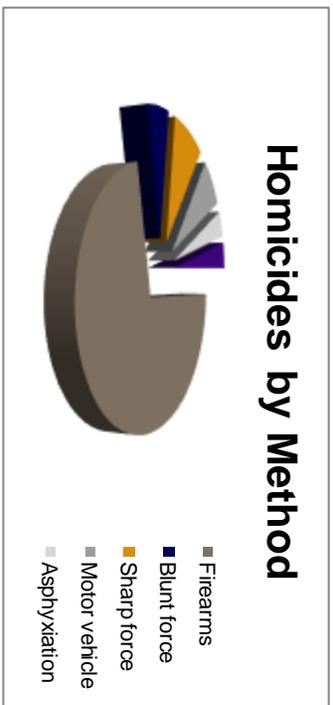


# Accidents, Homicides, and Suicides

	Tarrant	Denton	Johnson	Parker	Total	%
Alcohol	4	1	0	0	5	1%
Asphyxiation	24	3	1	2	30	3%
Drowning	28	9	0	1	38	4%
Drugs	183	61	11	14	269	30%
Fall	166	39	0	11	216	24%
Fire	2	2	3	0	7	1%
Motor vehicle	233	45	15	14	307	34%
Other	23	6	3	1	33	4%
<b>TOTAL</b>	<b>663</b>	<b>166</b>	<b>33</b>	<b>43</b>	<b>905</b>	



	Tarrant	Denton	Johnson	Parker	Total	%
Asphyxiation	5	0	1	0	6	4%
Blunt force	9	0	0	0	9	6%
Firearms	106	7	2	2	117	72%
Motor vehicle	9	2	0	0	11	7%
Sharp force	11	3	0	0	14	9%
Other	3	1	0	2	6	4%
<b>TOTAL</b>	<b>143</b>	<b>13</b>	<b>3</b>	<b>4</b>	<b>163</b>	



	Tarrant	Denton	Johnson	Parker	Total	%
Asphyxiation	4	2	0	0	6	1%
Drugs	26	10	1	1	38	9%
Firearms	152	64	17	11	244	60%
Hanging	65	12	2	7	86	21%
Jumping	6	4	0	0	10	2%
Sharp force	7	2	0	0	9	2%
Motor vehicle	2	1	0	0	3	1%
Other	5	3	1	0	9	2%
<b>TOTAL</b>	<b>267</b>	<b>98</b>	<b>21</b>	<b>19</b>	<b>405</b>	



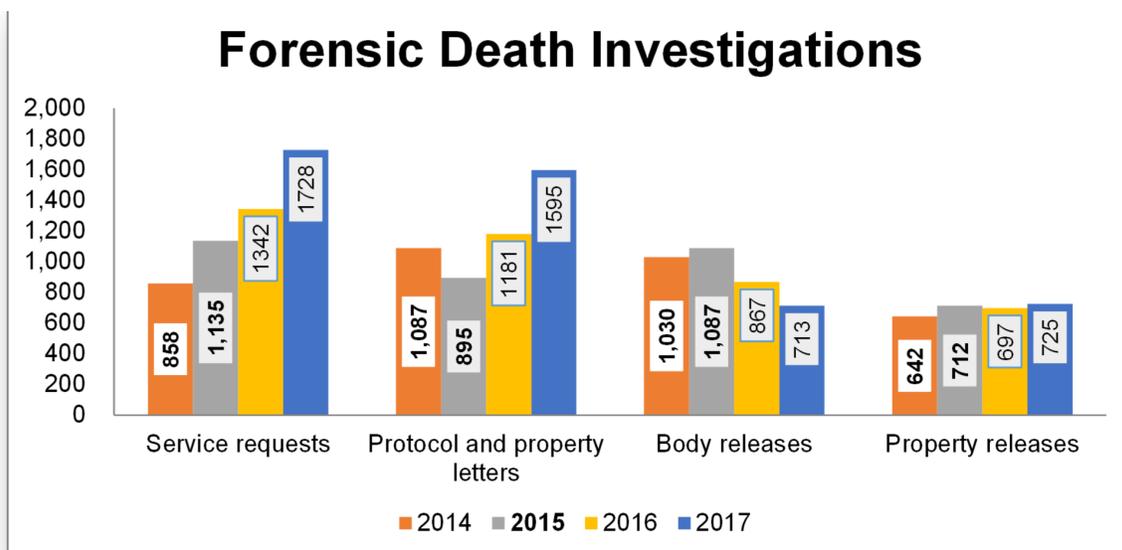
# Departments in Depth

# Forensic Death Investigation

**F**orensic Death Investigation conducts investigations into the cause and manner of deaths occurring within its jurisdiction of Tarrant, Denton, Johnson, and Parker counties. Staffed around-the-clock, the department is responsible for initiating a formal response to all reportable deaths, which totaled **12,406** in **2017**.

Trained across multiple disciplines, forensic investigators boast a distinctive array of knowledge, including criminal investigation techniques, relevant aspects of forensic medicine, crime scene processing skills, and methods of maintaining case integrity. Moreover, each investigator must be able to conduct effective interviews, locate and notify next of kin, and interact appropriately with law enforcement personnel.

Once the Tarrant County Medical Examiner's office assumes jurisdiction of a case, the investigator attends the scene or the hospital at which death occurred. After conducting the initial investigation, the investigator prepares a detailed case report containing biographical data on the decedent, a narrative of the events leading up to the time of death or discovery of the decedent, and a summary of all analyses and leads obtained. Investigators further coordinate with health care providers, members of law enforcement, employers, families, and other pertinent sources to gather information that may be of value in determining the cause and manner of death.



# Human Identification Services



Identification of unidentified remains, a primary function of the Tarrant County Medical Examiner's Office, is a legal determination important for both legal and humanitarian reasons. The process requires a holistic approach that takes into consideration all available scientific and contextual evidence. For most people, having a loved one at a morgue for postmortem examination is stressful; hence, the Tarrant County Medical Examiner's Office strives to mitigate this by timely identification within the scope defined by [Statute 49.25, Section §9 of the Texas State Code of Criminal Procedure](#).



The Tarrant County Medical Examiner's Office established the Human Identification Laboratory in the mid-1990s as a standalone facility, a concept then unique among medical examiner's offices in the United States. This laboratory is charged with the responsibility of investigating and attempting to identify all decedents presented to the District as "unidentified." The Human Identification Laboratory additionally verifies the identity of all homicide



victims examined by the office.

Since 2013, the Human Identification Laboratory has identified more than **3,200** individuals in the morgue.

## Identification Methods

There are a number of scientific methods employed to definitively establish an identity, including:

- Fingerprint analysis
- Comparison of dental radiographs and records
- Comparison of medical radiographs and records
- DNA analysis

Other methods, such as lip-print analysis (or cheiloscopy), ear-print analysis, and gait analysis are not generally accepted nor used in the U.S. at this time.

## Staffing

The Human Identification Laboratory comprises a full-time forensic odontologist, a full-time forensic anthropologist, and two full-time fingerprint examiners. Note that the fingerprint section of the lab operates 24 hours a day, seven days a week.



### Forensic Odontologist

- Roger D. Metcalf, D.D.S., J.D.



### Forensic Anthropologist

- Dana Austin, Ph.D.



### Latent Fingerprint Examiner

- ShaVonda Epps



### Latent Fingerprint Examiner

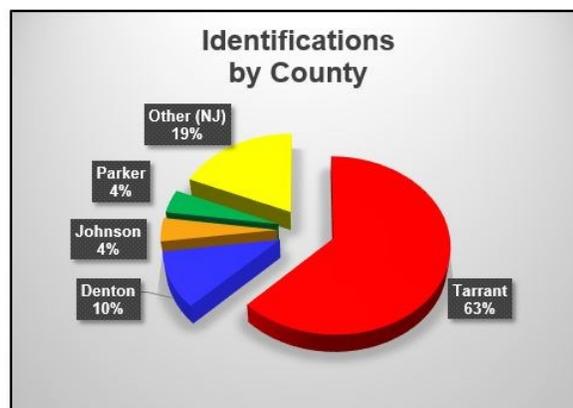
- Bill Walker

**Roger D. Metcalf, D.D.S., J.D.** is the director of the Human Identification Laboratory. He is [board-certified in forensic odontology](#) and holds a diploma in Forensic Human Identification from the [Faculty of Forensic and Legal Medicine of the Royal College of Physicians in London](#). He is the only person in the U.S. to hold this qualification at this time. Dr. Metcalf is the past president of the [American Society of Forensic Odontology](#) and past chair of the Certification and Examination Committee of the American Board of Forensic Odontology.

**Dana Austin, Ph.D.**, is the District’s forensic anthropologist. She is board-certified by, and is the past president of, the [American Board of Forensic Anthropology](#). In addition to performing laboratory examinations, she supervises the Field Recovery Team, which is called out from time to time to recover skeletonized human remains or assist in exhumations. Dr. Austin also works with various state agencies to repatriate Native American remains that are discovered in the District’s jurisdiction.

**Ms. ShaVonda Epps** and **Mr. Bill Walker** are the lab’s fingerprint examiners. They are each members of the International Association for Identification and both certified by the Texas Department of Public Safety as terminal operators of the [Automated Fingerprint Identification System](#) (A.F.I.S.). Whenever known antemortem fingerprints are available from stored state or national data, A.F.I.S. allows for rapid identification of decedents via fingerprint analysis and comparison.

As shown in the chart at right, the majority (about 90%) of unidentified persons at the Tarrant County Medical Examiner's Office are identified via fingerprint analysis. Identifications made this way are generally complete within 24 hours of the decedent’s arrival.



## Identification Process

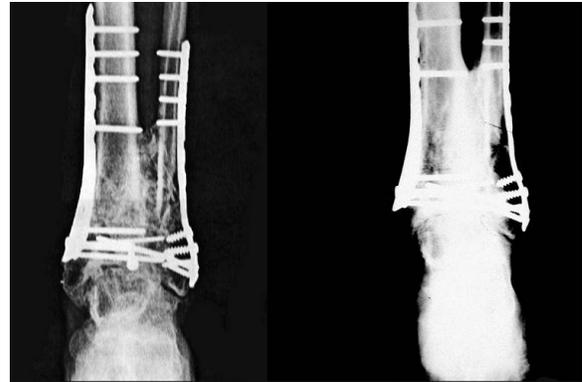
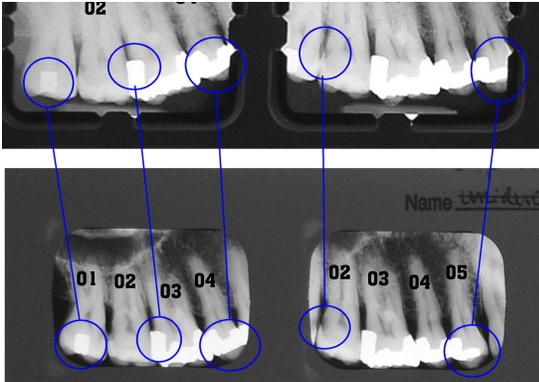


The Human Identification Laboratory's identification protocol normally begins with a fingerprint inquiry to determine if the decedent's fingers are suitable for fingerprinting. If they are, the lab can access the A.F.I.S. and/or the [Next Generation Identification](#) system (NextGen or N.G.I.), as well as request fingerprints from the Texas Department of Public Safety's driver's license database. International fingerprints can be obtained from the [Biometric Support Center West at the U.S. Department of Homeland Security](#). Fingerprint identification is generally quick and cost-effective, and a major advantage of the A.F.I.S. and NextGen systems is that there is no need to have any information

regarding the tentative identity of the decedent in order to perform the database inquiry.

If fingerprint analysis is not feasible, such as in cases with badly charred human remains, the next method employed by the lab is a review and comparison of dental and medical radiographs and records. With these methods, the lab does need to have some basic information regarding the tentative identity of the decedent. The lab obtains this information through interviews with the family or friends of the putative decedent, attempting to find out which dentists and healthcare providers the individual may have seen, or whether any radiographs, such as a head CT or chest x-ray, may have been made in a hospital.

If the lab does find a dentist or hospital where the putative decedent was treated, staff request any records they may have. If radiographs are available, Dr. Metcalf will evaluate the dental films while Dr. Austin evaluates any medical imaging. A recommendation regarding the decedent's identity will then be made to the medical examiner leading the case.



When other methods fail or cannot be used, DNA analysis is the last resort of the Human Identification Laboratory. [Section §63.056 of the Texas Code of Criminal Procedure](#) states:

COLLECTION OF SAMPLES FROM UNIDENTIFIED HUMAN REMAINS. (a) A physician acting on the request of a justice of the peace under Subchapter A, Chapter [49](#), a county coroner, a county medical examiner, or other law enforcement entity, as appropriate, shall collect samples from unidentified human remains. The justice of the peace, coroner, medical examiner, or other law enforcement entity shall submit those samples to the center for forensic DNA analysis and inclusion of the results in the DNA database.

The “center” in Section §63.056 refers specifically to the University of North Texas Human Identification Center in Fort Worth, colloquially known as the UNT Lab. The TCMEO’s Human Identification Laboratory submits specimens obtained at the time of examination of human remains to the UNT Lab, and a family member or two will be asked to go to the UNT Lab to provide a family reference sample for comparison. (The sample needed is a buccal swab, obtained by swabbing the inside of the cheek.) There is no charge to the family for this procedure.



The UNT Lab then develops the decedent’s DNA and compares it to the profile from the family reference sample. Occasionally, the family of a missing person will have already provided the reference sample to the database, and rarely, the decedent’s own DNA profile will already be in the database.

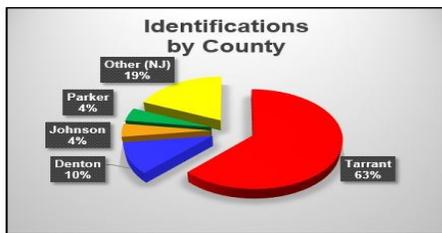
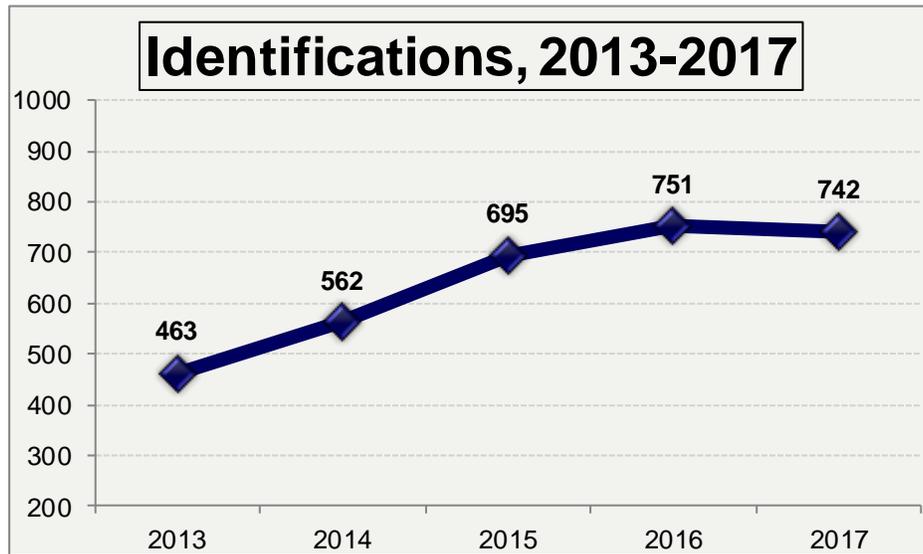
If identification cannot be made, the Human Identification Laboratory enters what information it has for the unidentified remains into the clearinghouse and the [National Crime Information Center's Unidentified Person File](#) within ten working days, in compliance with the Texas Code of Criminal Procedure Section §63.009(c), which states:

All Texas law enforcement agencies are required to enter information about all unidentified bodies into the clearinghouse and the National Crime Information Center Unidentified Person File. A law enforcement agency shall, not later than the 10th working day after the date the death is reported to the agency, enter all available identifying features of the unidentified body (fingerprints, dental records, any unusual physical characteristics, and a description of the clothing found on the body) into the clearinghouse and the National Crime Information Center file. If an information entry into the National Crime Information Center file results in an automatic entry of the information into the clearinghouse, the law enforcement agency is not required to make a direct entry of that information into the clearinghouse.

The Human Identification Laboratory also enters information regarding these cases into the [National Missing and Unidentified Person System](#) (NamUS) that is currently housed at the University of North Texas Health Science Center in Fort Worth. These various databases periodically compare the information about unidentified persons in their system to the information about missing persons that has been entered into the respective system, scanning for possible matches. Access to the N.C.I.C. database is limited to law enforcement agencies, while the NamUS missing persons' database is open to the general public.

The Human Identification Laboratory maintains a list of all unidentified individuals who have been buried by Tarrant County Human Services. Before an unidentified decedent can be released for burial, however, various samples are collected and preserved in the hope of eventual identification and in compliance with state law.

# Human Identification Laboratory Statistics



Identification Method	Average Time to Identify (days)
Anthropology	7
Dental	3
DNA	103
Fingerprints	1



## ANTHROPOLOGY

Full Skeletal Analysis	8
Scene Recovery	7
Neck Trauma Evaluation	24
Trauma Evaluation—other	19
Rad Comp ID	24
Historic / Prehistoric	1
FBI Consult	1
Non-Human Remains	1



# The Morgue & Evidence Services

The heart of activity of any medical examiner's facility, the Tarrant County Medical Examiner's Office morgue was dedicated in 1989 and employs a design that centralizes morgue activity, effectively connecting interrelated morgue functions while isolating it from other work areas of the building. This design limits pathogen exposure and enables examiners and technicians to work with minimum interruption.



The main morgue consists of four workstations, each designed to further a dynamic work environment in which examinations can be carried out with maximum efficiency. A separate major case morgue and a two-station isolation/biohazard morgue were included in the new construction. The morgue also contains two holding areas, each capable of holding fifty bodies; one of the areas is dedicated to incoming cases only, while the other holds bodies awaiting release.

The morgue's autopsy technicians, or deiners, assist the medical examiners in forensic examination. Each deiner is responsible for obtaining photographs, radiographs (x-rays), fingerprints, and biological samples from the decedent before autopsy.

Because the identification of foreign bodies in or on a decedent is vitally important to a comprehensive examination, the medical examiner's office relies on radiography tools like the C-arm fluoroscope, which enables imaging of the body without prior removal from the transport gurney. Other tools include a fixed flat plate device and articulated dental radiography equipment.

## Evidence Services

In order to preserve evidentiary integrity, each piece of evidence collected by or submitted to the Tarrant County Medical Examiner's Office must be paired with a detailed chain-of-custody log. Forensic technicians with expertise in evidentiary preservation maintain and secure chain-of-custody to ensure that all evidence is handled and stored properly.

# Drug Chemistry & Toxicology

**F**orensic chemists analyze drugs submitted by other agencies. Drug types received commonly range from clandestine chemical substances to the therapeutic or prescribed medications. Cocaine, heroin, marijuana, and amphetamines, all drugs of abuse, represent the most common products received for chemical assay. Daily, law enforcement agencies within the TCME District are faced with the challenge of identifying drugs found following an arrest or search warrant execution.

## Breath Alcohol Program



An Intoxilyzer instrument measures a sample of breath for determinable levels of alcohol concentration, providing an objective, scientific means of testing someone who is suspected by police to have been driving under the influence of alcohol. In 1994, using grant funds supplied by the Texas Department of Transportation, the Intoxilyzer program was established at the Tarrant County Medical Examiner's Office. Under the program, forensic chemists establish Intoxilyzer test sites, calibrate and maintain equipment, and train Intoxilyzer operators, which benefits local police agencies.

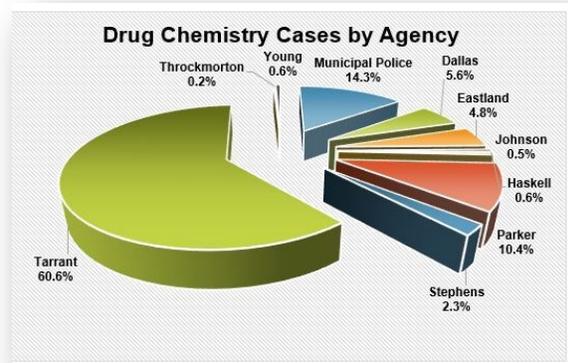
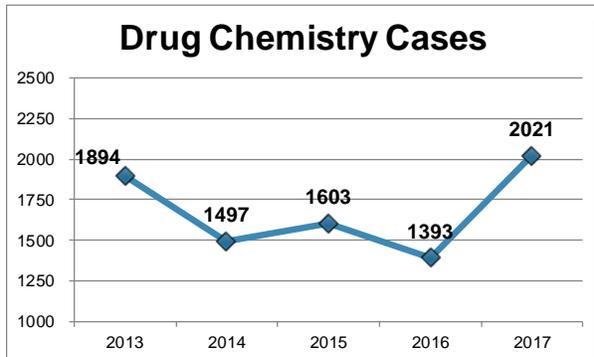
## Forensic Toxicology

Established at the Tarrant County Medical Examiner's office in 1983, the toxicology laboratory has subsequently expanded to include mass spectrometry, gas chromatography, and high-pressure liquid chromatography analysis. The toxicology laboratory provides drug testing to assist the medical examiners in determining the cause and manner of death by isolating, identifying, and determining the level of chemicals present in specimens. The forensic toxicology laboratory also participates regularly in established analytical proficiency testing and quality assurance programs.



# Drug Chemistry

2017 saw an increase in casework by approximately 70% allowing continual improvements with new instrumentation as well as training new lab personnel. With these challenges, the average turnaround time was 39 days to complete a case.



Average cases per month, 2017

168

244

Highest monthly caseload (2013)

Lowest monthly

72

140

5-year average cases/month

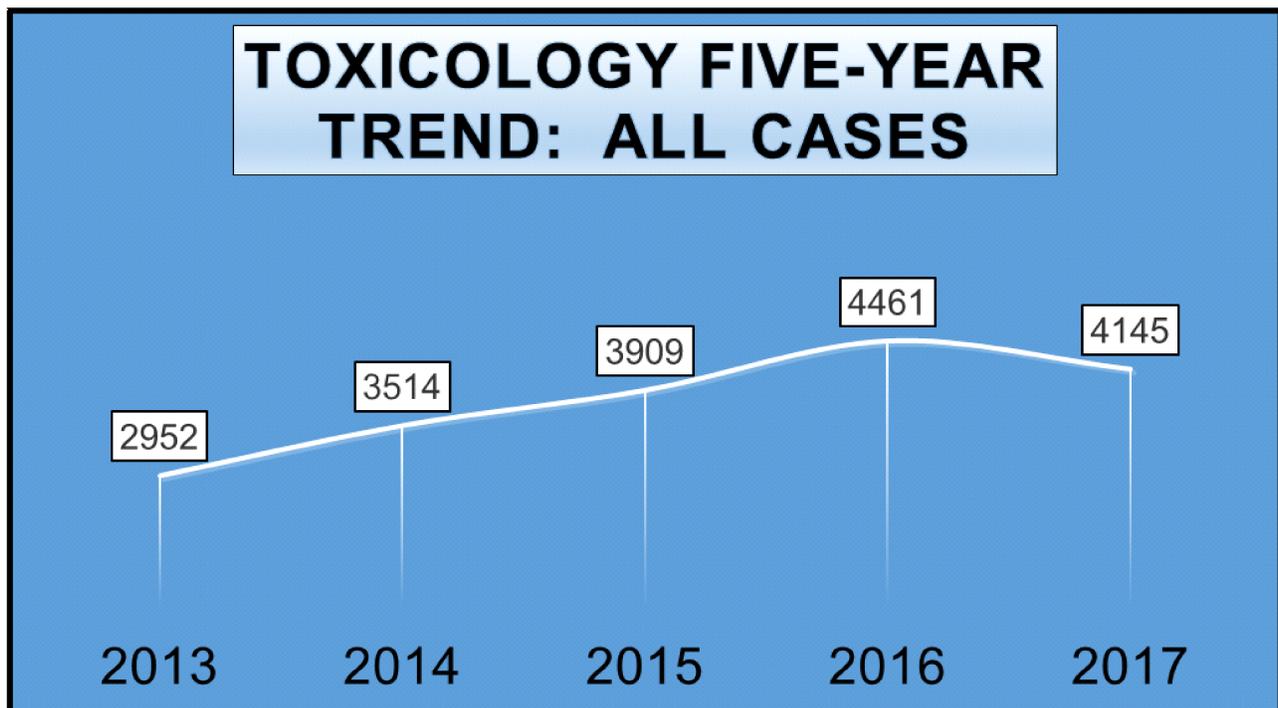
# Breath Alcohol

## *Accomplishments of Technical Supervisor:*

- Inspected and maintained 19 testing locations at 15 agencies monthly
- Re-certified over 200 Breath Test Operators
- Prepared 218 affidavits for Administration License Revocation hearings
- Prepared 174 document requests subpoena/discovery motion
- Testified in 42 trials
- Number of completed breath tests: 2035

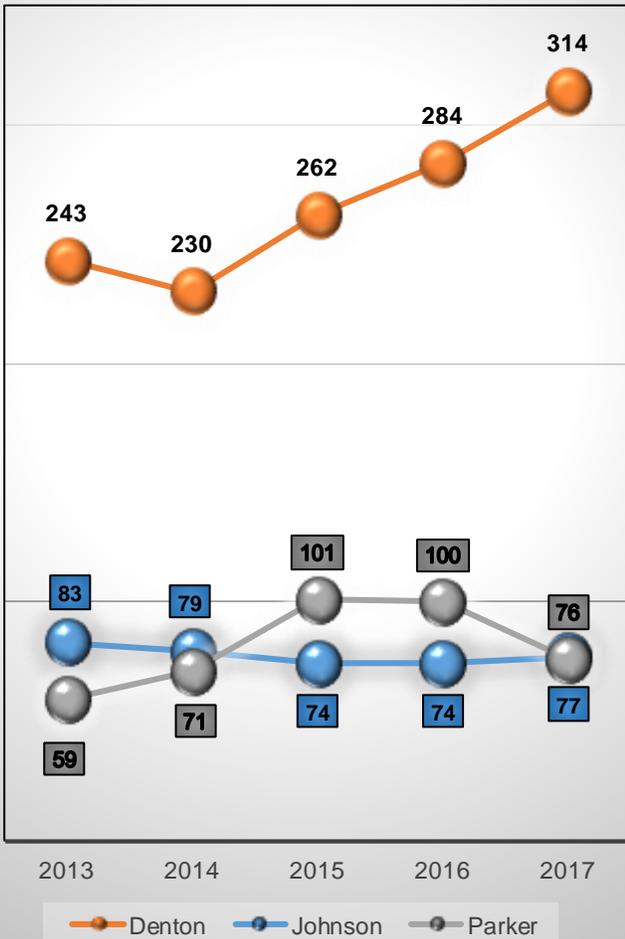
# Toxicology

In 2017, Toxicology cases from the four counties in the Tarrant County Medical Examiner's District totaled 1728, up 1% from 1707 the previous year, and accounting for 42% of all Toxicology cases. Other medical examiner (604) and outside agency (1813) cases bring the total cases completed by the Toxicology laboratory in 2017 to 4145, representing an decrease of 7.6% over 2016's total of 4461.

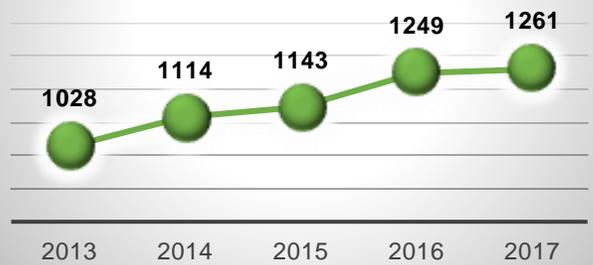


Outside cases, which typically include DWI, DFSA (drug-facilitated sexual assault), and defense attorney cases, decreased by 16% from 2156 cases in 2016 to 1813 cases in 2017. This decrease can be explained by loss of temporary work being performed for another laboratory during their method validations in 2016. The average turnaround time to complete a toxicology service request was 21 days (16 days in 2016).

## Toxicology Five-year Trend: Denton, Parker, and Johnson Counties



## Toxicology Five-year Trend: Tarrant County



## Toxicology Five-year Trend: Other Cases



	2017											
	2012	2013	2014	2015	2016	Tarrant	Denton	Johnson	Parker	Other		Total
										ME	Non-ME	
JAN	239	316	266	329	405	125	22	7	5	56	212	427
FEB	267	218	314	306	395	96	25	5	7	51	201	385
MAR	229	303	256	317	407	103	25	12	9	54	150	353
APR	214	255	328	311	375	120	21	9	4	41	159	354
MAY	261	229	283	301	358	109	27	7	8	46	175	372
JUN	261	224	289	306	370	108	36	4	6	41	156	351
JUL	279	221	276	354	404	112	27	3	6	55	113	316
AUG	268	230	277	308	412	97	32	1	7	55	153	345
SEP	254	263	285	255	393	90	30	7	5	53	113	298
OCT	280	207	312	377	273	96	26	6	6	50	104	288
NOV	270	235	316	317	341	97	23	10	8	41	144	323
DEC	230	251	312	428	328	108	20	6	5	61	133	333
<b>TOTAL</b>	<b>3052</b>	<b>2952</b>	<b>3514</b>	<b>3909</b>	<b>4461</b>	<b>1261</b>	<b>314</b>	<b>77</b>	<b>76</b>	<b>604</b>	<b>1813</b>	<b>4145</b>

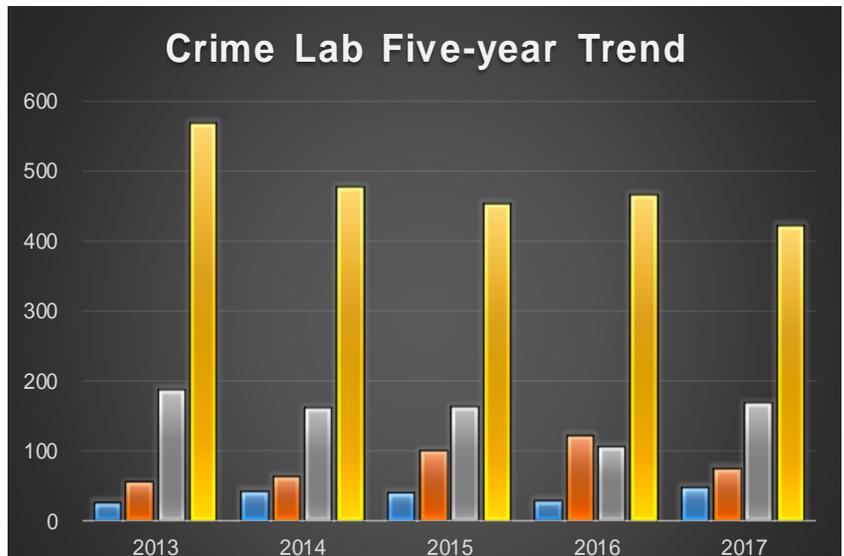
# Criminalistics

Since 1989, the Tarrant County Medical Examiner’s Office has operated a full-service crime laboratory, serving the needs of not only its medical examiners, but also of law enforcement agencies and district attorney’s offices in North Central Texas and throughout the United States.

Equipped with modern analytical instrumentation, the various sections of the crime laboratory combine scientific technology with an experienced professional staff. The five specialized sections of the crime laboratory identify, analyze, and report on such forms of evidence as DNA, blood spatter, trace materials, chemical compounds, firearms, tool marks, and latent fingerprints.

In 2016, the Trace Evidence laboratory expanded the scope of their ASCLD/ LAB International accreditation to include imprint/impression evidence comparisons (footwear and tire tread examinations),

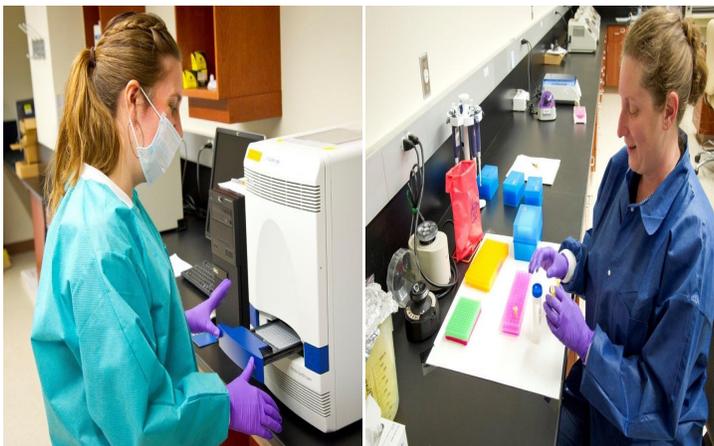
Criminalistics Cases by Laboratory				
	Latent Prints	Firearm/ Toolmark	Trace Evidence	Forensic Biology
<b>Total reports issued in 2017</b>	<b>46</b>	<b>72</b>	<b>167</b>	<b>420</b>
Reports issued within TCMED	40	65	139	354
Reports issued outside TCMED	6	7	28	66
TCME or law enforcement on TCME case	8	36	97	53
Non-ME case	38	11	53	366



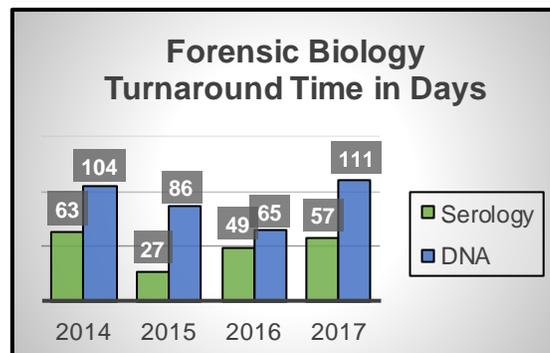
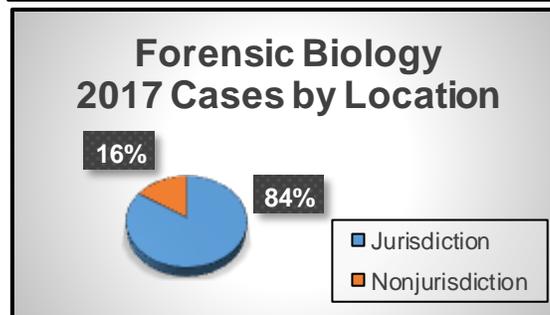
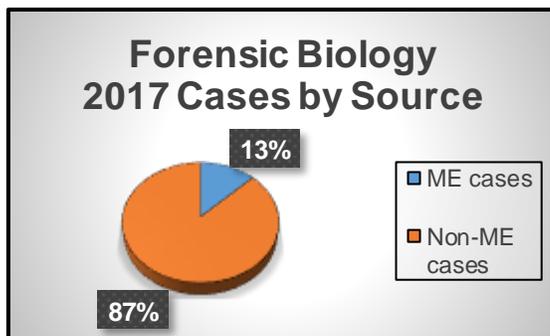
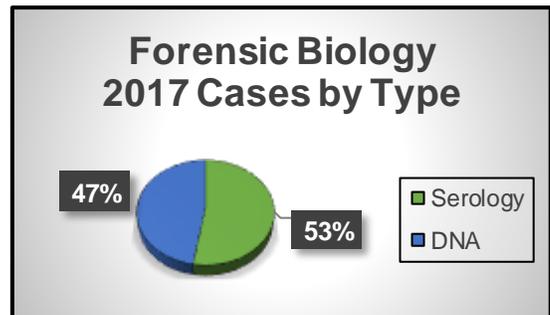
# Forensic Biology

**D**NA analysis provides the ability to restrict the potential population of persons to whom a biological sample might belong to a much smaller subset of suspects. This helps identify the source of a sample and connect it to a particular death or crime scene.

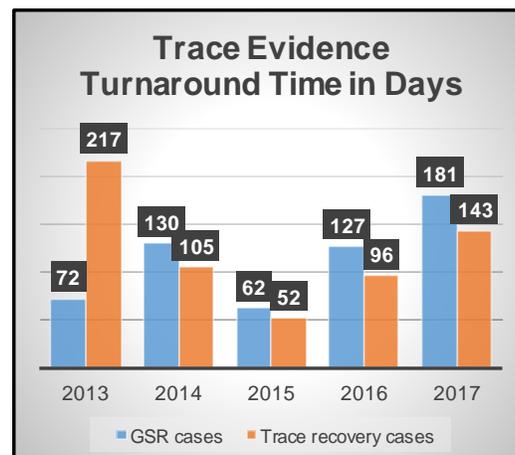
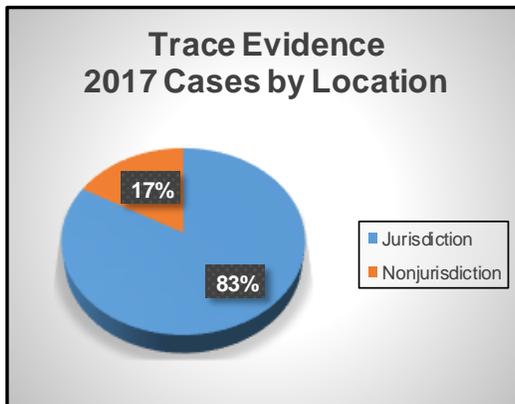
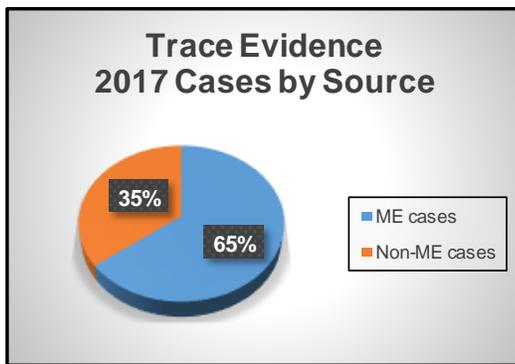
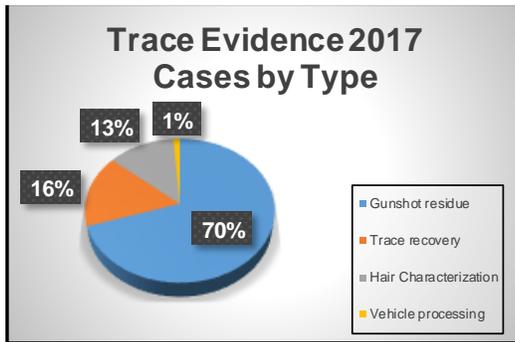
The Tarrant County Medical Examiner's DNA unit is a designated CODIS (Combined DNA Index System) laboratory. CODIS is the FBI's DNA database that ultimately links all 50 states and 18 countries in order to compare forensic casework profiles. A database search can provide significant investigative leads and may link unsolved cases to a single perpetrator.



Forensic Biology issued reports on 420 cases in 2017. These cases are categorized at right by *type* (serology or DNA), *source* (requestor), and *location* (within or without the Tarrant County Medical Examiner's District).



# Trace Evidence



**T**race evidence is material that can be easily transferred from one site to another because of its size or weight. During the commission of a crime, substances may be transferred between people or objects or acquired from the surrounding environment. Gunshot residue, hair, glass, paint, and fibers are items commonly submitted for examination.

Trace analysis uses advanced technology and instrumentation to obtain chemical profiles of materials, in order to relate them to each other or to a common source. This enables investigators to potentially link a suspect and a victim to a shared location.

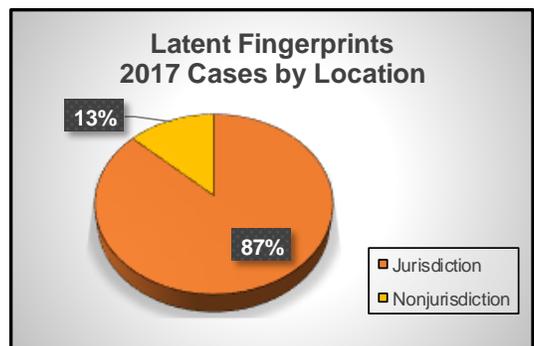
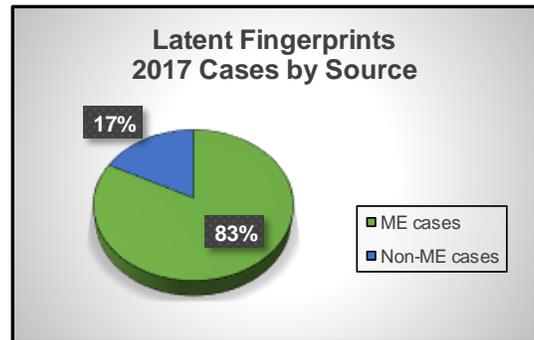


Trace Evidence issued reports on 167 cases in 2017. These cases are categorized at left by *type* (gunshot residue or trace recovery), *source* (requestor), and *location* (within or without the Tarrant County Medical Examiner's District).

# Latent Fingerprints

A fundamental tool of the Tarrant County Medical Examiner's Office, latent fingerprint examination helps to identify bodies that arrive to the morgue unidentified. Latent prints can also be retrieved from submitted evidence and used to assist in identifying a criminal suspect. Using the newest technology and considerable expertise, the latent print examiner achieves remarkable results in lifting prints from various substrates.

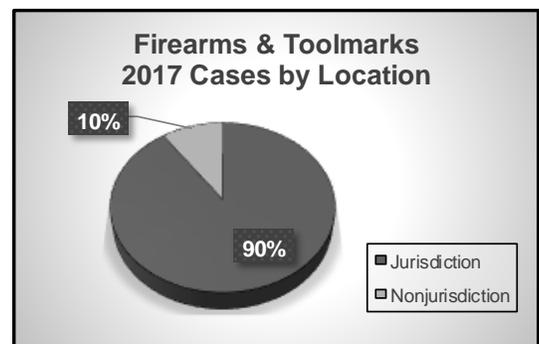
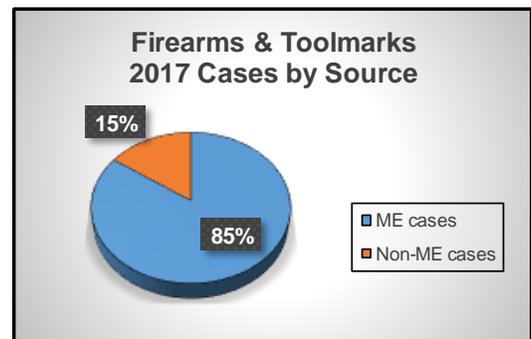
Latent Fingerprints issued reports on 46 cases in 2017. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's District).



# Firearms and Toolmarks

Much as its name suggests, this laboratory analyzes firearms, projectiles, ballistics, and markings imparted by any form of tool. Firearms submitted are examined for inherent characteristics, unique identifiers, and safety-related factors. They can also be test-fired to obtain reference material that can subsequently be compared to submitted evidence. The laboratory boasts a 40-foot indoor firing range, used to carry out range-of-fire determinations.

Firearms and Toolmarks issued reports on 72 cases in 2017. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's District).



# Forensic Photography

A fully equipped forensic photography laboratory was added to the Criminalistics Laboratory of the Tarrant County Medical Examiner's Office in 1994. By 2005, Forensic Photography had replaced all film processing with digital photography.

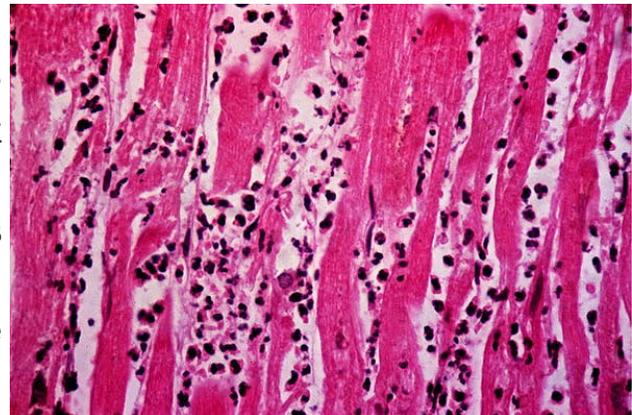
In addition to more traditional photography, the laboratory is capable of making photographs using ultraviolet and infrared techniques. Image enhancement can also be performed. Pictures, enlargements, and other services are provided to medical examiners, courts, and individuals for educational or research-based presentations.



The Forensic Photography laboratory produced 157,376 autopsy and scene photographs and worked on a total of 1981 cases in 2017. An average of 13,115 photographs were produced by the laboratory monthly.

# Forensic Histology

Many cause of death determinations rely upon the examination of decedent tissues and organs. Special stains and fixation methods are employed to assist the physician in identifying disease processes and tissue changes that occur in response to trauma, lifestyle habits, or other variables.

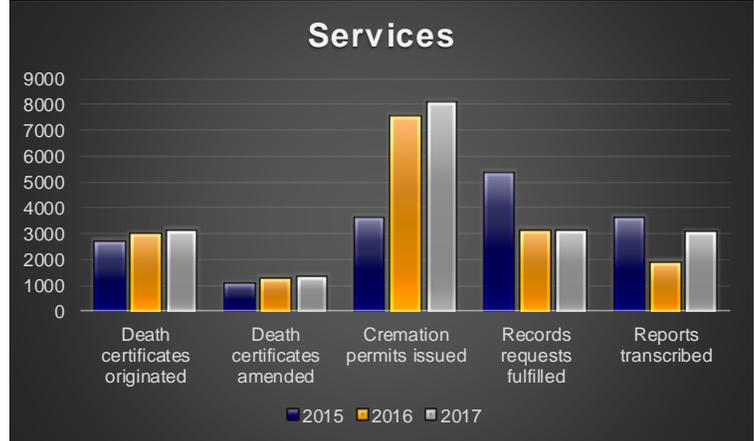


In 2017, Forensic Histology provided 43,382 services (averaging over 3615 monthly) and worked on a total of 2097 cases. The slight decrease from 2016 was due to quality improvement with procedures and training new personnel.

# Administrative & Facility Support

## Secretarial Services

Secretaries for the medical examiner's office work directly with the public, assisting bereaved families, law enforcement personnel, judicial authorities, healthcare providers, and funeral directors through what many people understandably find to be a difficult and perplexing time. Each medical examiner is assigned a secretary, who provides the



administrative support services necessary to the daily operation of the business. Additional services provided by the secretarial team include issuing death certificates and medical amendments, preparing and distributing cremation permits, transcribing autopsy reports, managing case records, documenting continuing medical education (CME) credits, and producing other business reports.

## Business Office

The Business Office was established to meet the increasing complexities of the day-to-day management of the business aspects of the TCME. The Business Manager and Bookkeeper comprise the office and carry out budgeting, contracting, financial reporting, accounts payable, accounts receivable, personnel timekeeping, and other related fiscal tasks. The Business Office also maintains inventory of all supplies, office equipment, and scientific equipment, and ensures all service warranties are current. The Transportation of Human Remains contract, a key requirement of business operation, is also supervised by the Business Manager.

## Building Superintendent

Responsible for all general maintenance of the building, the Building Superintendent oversees vendors and contractors to ensure work is performed properly, and supervises work-release individuals assigned to janitorial and grounds duties. This role is especially vital in maintaining the ventilation and air conditioning requirements unique to a medical examiner's office, with its inherent biohazards and significant investment in scientific instruments that cannot tolerate temperature changes.

# Role of a Medical Examiner in Health and Armed Conflicts

## Role of a Medical Examiner in Health and Armed Conflicts

Wars and armed conflicts by their very nature are cruel and ruthless. In the 17th century, the Dutch jurist Hugo Grotius, widely regarded as the father of public international law, wrote that "wars, for the attainment of their objects, it cannot be denied, must employ force and terror as their most proper agents". A forensic pathologist can play a crucial role in armed conflicts because of the unique training he or she receive which includes examination of human remains to determine both the cause and manner of death, and discuss the mechanism of death. Although the obvious role then would be to perform exhumation autopsies in mass killings or genocides, being a physician, a forensic pathologist is also uniquely qualified to evaluate and document physical torture, use of excessive force, and use of chemical weapons as well as violation of medical neutrality in armed conflicts based on prevailing international laws and conventions.

Most of the investigations this author has conducted including investigation of Rwanda and Bosnia genocides, violation of medical neutrality and use of excessive force in Bahrain and the Israeli Occupied West Bank and Gaza, searching for mass graves in post-Saddam Iraq, documenting mass graves in Bamiyan as well as Dash-t-Layli in Afghanistan after the defeat of the Taliban and conducting local area capacity assessment in Libya after the fall of Colonel Gadhafi were all sponsored and logistically supported by non-governmental organizations such as Physicians for Human Rights (USA) as well as by the United Nations Human Rights Commission.

In 1973, Amnesty International (AI) sponsored a major conference against torture in Paris. As a result, the first AI medical group was formed in Copenhagen in 1974. Since then a large number of physicians from many countries across the globe have assisted AI and similar organizations including Physicians for Human Rights (non-governmental organization based in Boston, MA) in their mandate against torture, taking action on behalf of detained physicians and prisoners of conscience, and protecting human rights and ethical standards within the medical profession.

The role played by forensic experts is quite obvious. Besides examining victims of torture and fatal injuries in custody, forensic experts are now involved in performing forensic evaluation to document crimes against humanity as well as genocide and help identify human remains. Forensic examiners draw from many specialties including forensic pathology, nursing, anthropology, dentistry, toxicology, and various disciplines in criminalistics, especially ballistic and tool mark as well as serology and DNA.

Historically, health and human rights have always been linked. In describing this linkage and providing a framework, Jonathan M. Mann et al.<sup>1</sup> focuses on three relationships: the first concerns the potential impact of health policies, programs, and practices on human rights. The second expresses the idea that violations or lack of fulfillment of any and all human rights have negative effects on physical, mental, and social well-beings, both in peace-time and particularly so in times of conflict and extreme political repression. The third expresses the notion that health and human rights act in synergy. Hence, promoting and protecting health requires explicit and concrete efforts to promote and protect human rights and dignity and likewise, greater fulfillment of human rights necessitates sound attention to health and to its social determinants.

Modern concepts of health derive from two related although quite different disciplines: Medicine and Public Health. Medicine generally focuses on health care services of an individual in the context of physical as well as mental illness and disability; public health focuses on health of populations, “[ensuring] that the conditions in which people can be healthy”<sup>2</sup>, i.e. public health has a distinct health promoting goal and emphasizes prevention of:

Disease

Disability and

Premature death

For public at large, the history of public health is the history of infectious disease control, peopled with illustrious names in the Western world like Louis Pasteur, Edward Jenner and Robert Koch and exemplified by the eradication of smallpox as well as implementation of the sanitary revolution that established and applied the principles of modern hygiene. Yet public health goes far beyond traditional infectious disease control. The modern view of health is broad.

In 1986, WHO developed the most widely used modern definition of health, “Health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity”<sup>3</sup> With this declaration, WHO has helped to move health thinking beyond a limited, biomedical, pathology-based perspective, beyond individual diseases or viruses, to the more positive domain of “well being” by incorporating social and mental dimensions. The societal dimensions of these efforts were emphasized in the Declaration of Alma-Ata (1978), which described health as a “Social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.”<sup>4</sup>

The delivery of health around the world is provided through many diverse public and private mechanisms. However, the primary responsibilities of public health are carried out in large measure through policies and programs promulgated, implemented, and enforced by, or with support from, the state usually through its Department of Health and Human Services or Ministry of Health. Central to all programs of health delivery and promotion is the concept of prevention, which involves three levels:<sup>5</sup>

1st. Primary prevention is “pure” prevention, or preventing the health problem from occurring at all. E.g. preventing cancer through avoidance of tobacco smoking; or preventing polio by vaccinating children with a polio vaccine. This is clearly the most cost-effective approach. Primary prevention is often referred to as health promotion, the process of enabling people to increase control over and to improve health.<sup>6</sup>

2nd. Secondary prevention involves prompt detection and successful management or treatment of the health condition so as to avoid actual damage to the person’s health. E.g. early detection and treatment of high blood pressure can prevent the strokes or kidney damage which result from uncontrolled hypertension.

3rd. Tertiary prevention seeks to limit the impairment, increase the quality of life and prolong life. E.g. providing emergency care for victims of automobile crashes, or rehabilitative services to help maximize activity and independence after a stroke or heart attack.

Promotion of prevention in the public health setting necessitates assessing health needs and problems. Assessment is the first and primordial step, without which adequate policy development and assurance of service are greatly handicapped. Assessment means collecting and analyzing data in order to identify and understand the major health problems facing a community. The main tool of assessment is the science of epidemiology. It is in this arena, that the science of forensics is a critical partner in public health, for through institution of sound forensic programs, reliable and accurate mortality data as well as both manner and mechanism of death may be gathered, not just in the domain of trauma, but also in the setting of deaths due to diseases.

Prevention of deaths due to “accidents” is a prime example.<sup>7</sup> Until fairly recently, automobile crashes, household fires, drowning and other such traumatic events were simply considered as “accidents”, an act of divine providence. In other words, they were seen as unpredictable events occurring without warning and which could not be prevented. Then, epidemiological data discovered two key facts: first, accidents are fairly predictable and are not really random events; second, injuries are the major cause of hospitalization, disability and death in industrialized as well as developing countries. Once the problem of injuries was recognized and forensically studied, specific prevention intervention could be rationally designed, implemented and evaluated. For example, burns could be prevented by changes in stove design or location; automobile seat belts and air bags could prevent drivers and passengers from injury in a frontal vehicular crash or head restraints (head rest) in mitigating or reducing catastrophic whiplash injuries in rear-ended collisions. The ultimate aim in public health is to prevent injury from occurring in the first place (primary prevention). Hence the strategy adopted to implement prevention programs necessitates understanding and defining types of injuries, their severity and mechanism by which they are produced. As forensic pathologist, we attempt to assign vehicular crash causation to various variables such as:

- a. Poor driving skills (young inexperienced driver).
- b. Weather conditions.
- c. Debris on the roadway.
- d. Road design.
- e. Intoxication (ethanol and or drugs).
- f. Mechanical failure of the motor vehicle.
- g. Fatigue (long distance truck drivers).
- h. Inattentive ("texting" while driving), etc.

Understanding the severity of injuries once the crash has taken place will facilitate the design and implementation of secondary prevention program (for successful management or treatment of injuries by critical care intervention to avoid actual damage to the person's health) or tertiary prevention program (to limit the impairment caused by the injury and thereby increase the quality of life and prolong life).

Similarly, strategies can be implemented to prevent rapes, spousal and elderly abuse, child molestation and injury, suicide, alcohol, tobacco and drug abuse, and other preventable injuries. Finally, even in the more familiar arena where the public health has hitherto engaged, such as prevention of diseases including cardiovascular, respiratory and cancers, the need for epidemiological data or assessment of the problem is crucial. This is especially more critical in economically less vigorous societies, where limited public health budget necessitates priority oriented goals for health intervention and where early or primary preventive measures will negate or reduce the need for more expensive secondary and tertiary preventive measures. Forensic pathologist and forensic nurses play a critical role in this arena by defining both the pattern and severity of injuries.

The role played by forensics goes beyond the domain of public health. No other scientific specialty plays a more important and vital role than forensics in the domain of human rights. This is because of the need for a legitimate authority, best summed up by Thomsen,<sup>8</sup>

"... There is a need for forensic expertise in the detection of human rights violations. The concept of legitimate authority is central to the practice, indeed to the principle, of forensic medicine which is the application of medicine to the resolution of issues in a legal context. Without legitimate authority applying the law in accordance with international norms, the very concept of forensic medicine is undermined".

The evolution and acceptance of what constitutes violation of human rights and International Humanitarian Law has been slow and painful. In 1945, at the Tribunal of Nuremberg, which judged the accused war criminals of Nazi Germany, the international community pledged that "never again" would it allow monstrous crimes against humanity or genocide to take place.

In 1948, the United Nations General Assembly adopted the Convention on the Prevention and Punishment of the Crime of Genocide. In 1949, a Diplomatic Conference for the Establishment of International Conventions for the Protection of Victims of War, held in Geneva from 21 April to 12 August, adopted four Conventions, which codified the humanitarian action of soldiers in times of war. The four Geneva Conventions outlined the humane treatment of wounded, sick or surrendering combatants, prisoners and civilians, and banned the willful taking and killing of hostages. By 1951, these international treaties against genocide, war crimes and crimes against humanity had entered into force, establishing a body of law known as International Humanitarian Law.

During the same time frame, definitions of what constitutes human rights have been developed and adopted. A little over sixty years, the United Nations General Assembly adopted the Universal Declaration of Human Rights (UDHR). Although this document is non-binding in the international law, UDHR sets the tone to guarantee all people security, dignity, and well being in every country of the world.<sup>9</sup> In articles 1 and 2, UDHR states that all human beings are born free and equal in dignity and rights and they are endowed with reason and conscience and should act towards one another in a spirit of brotherhood. Furthermore, everyone is entitled to all rights and freedom without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

This declaration was drafted as a response to the horrors of World War II and was intended to be taught at every institution of learning and at every level of education throughout the world. Yet, sixty years later, we continue to witness horrendous crimes against humanity, genocides and ethnic cleansing. At the turn of the 20th century, every continent witnessed unfolding horrors and humanitarian crisis including the Democratic Republic of Congo, Afghanistan, Palestine, Kashmir, Chechnya, Angola, Colombia, Mozambique, Sri Lanka, Burundi, Somalia, and Kosovo. There is no doubt that some of the most serious threats to international peace and security are armed conflicts that arise, not among nations, but among warring factions within a state. Syria is clearly an example. With hundreds of thousands of civilians killed and many millions displaced both internally and externally, it is the single greatest human catastrophe since Second World War. Furthermore, situations of internal violence often spill over borders, endangering the security of other states and resulting in complex humanitarian emergencies. The human rights abuses prevalent in internal conflicts are now among the most atrocious in the world.

Although the International Humanitarian Law has been codified for some time, the venue for applying these remain tenuous. Despite the efforts of United Nations to direct the International Law Commission to draft a statute for an International Criminal Court, disagreement among Member States on the jurisdiction of such a court has hindered any decisive development towards its creation. Key nations, including the United States of America, continue to oppose the establishment of International Criminal Court. To circumvent this problem and to address the genocides that unfolded in the territories of Yugoslavia and Rwanda, the United Nations created two international criminal tribunals.

In 1993, faced with widespread atrocities committed under the policy of "ethnic cleansing" during the Yugoslav conflict between the Muslim, Serb and Croatian communities, the United Nations responded by setting up an international tribunal to bring the perpetrators of the crimes to justice. In May 1993, the Security Council, acting under Chapter VII of the United Nations Charter, created the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the former Yugoslavia since 1991 (ICTY).

In Rwanda, civil strife and internal violence led to genocide on a vast scale. From April to July 1994, a systematically planned genocide by extremist Hutu militia claimed the lives of between 500,000 and 1 million persons. The real number can never be established. The main victims of this carnage were members of the Tutsi minority and moderate Hutus. The civil war forced hundreds of thousands of Rwandans to flee to neighboring countries. By mid-July, more than 2 million Rwandan refugees were living in camps in Burundi, Tanzania and Zaire. Many thousands more had been displaced internally within the territory of Rwanda. In November 1994, the Security Council created the International Criminal Tribunal for the Prosecution of Persons Responsible for Genocide and Other Serious Violations of International Humanitarian Law Committed in the Territory of Rwanda. The gathering of forensic evidence to establish and prosecute the perpetrators of genocide was undertaken under the auspices of United Nations by Physicians for Human Rights, a Boston-based non-governmental organization.

Genocide is a value-laden word and does not include killings in the setting of a war or border skirmishes. Genocide is distinguishable from all other crimes by the motivation behind it. Winston Churchill<sup>10</sup> towards the end of the Second World War, when the full horror of the extermination and concentration camps became public knowledge, stated that the world was being brought face to face with 'a crime that has no name.' True, there were atrocities committed by all parties in the First World War in Europe, with slaughter of thousands of civilians by the Germans, Russians as well as the British, but the sheer number of civilians sent to extermination camps by the Nazi Germany was unparalleled. History was of little use in finding a recognized word to fit the nature of the crime that Nazi Germany had committed. Raphael Lemkin, the Polish-born adviser to the United States War Ministry, saw that the world was being confronted with a totally unprecedented phenomena and that 'new conceptions require new terminology.' In his book, *Axis Rule in Occupied Europe*, published in 1944, he coined the word 'genocide', constructed from the Greek 'genos' (race or tribe) and the Latin suffix 'cide' (to kill). According to Lemkin, genocide signifies 'the destruction of a nation or of an ethnic group' and implies the existence of a coordinated plan, aimed at total extermination, to be put into effect against individuals chosen as victims purely, simply and exclusively because they are members of the target group.

1. Mann J.M., Gruskin S., Grodin M.A. and Annas G.J. Human ights and Public Health. In: Health and Human Rights: A Reader. New York: Routledge, 1999: 1-20.
2. Institute of Medicine: Future of Health, Washington D.C.: National Academy Press, 1988.
3. World Health Organization: Constitution in Basic Documents, 36<sup>th</sup> edition. Geneva: WHO, 1986.
4. *Declaration of Alma-Ata*, Health for All. Series No. 1. Geneva: WHO, September 12, 1978.
5. International Federation of Red Cross and Red Crescent Societies and François-Xavier Bagnoud Center for Health and Human Rights. Public Health: An Introduction. In: Health and Human Rights: A Reader. New York: Routledge, 1999: 29-35.
6. Ottawa Charter for Health Promotion, 1986.
8. Health and Human Rights: A Reader. New York: Routledge, 1999:32 (see note 5)
9. Thomsen J.L. et al Amnesty International and the forensic sciences. Ame. J. Forensic Med. Pathol. 5 (1984) 4.
- 10 UN document A/810 at 71 (1948)
- 11 Alain Destexhe with a foreword by William Shawcross. Rwanda and Genocide in the Twentieth Century. New York University Press and Pluto Press/UK. 1995.

Nizam Peerwani, MD  
Chief Medical Examiner

# Knowledge Sharing

# A Passion to Educate

**F**rom annual conferences to weekly reviews to daily meetings, opportunities to educate are always welcomed by the staff of the Tarrant County Medical Examiner's Office. Our medical examiners, criminologists, and other scientists are routinely sought for their expertise in the field of forensics and relish every chance they get to augment the collective fund of knowledge in it. In this section, we highlight some of the 2016 events at which staff of the Tarrant County Medical Examiner's Office shared their expertise:



## **American Academy of Forensic Sciences**

***69th Annual Meeting:***

***February 2017—New Orleans, LA***

### ***Our Future Reflects Our Past:***

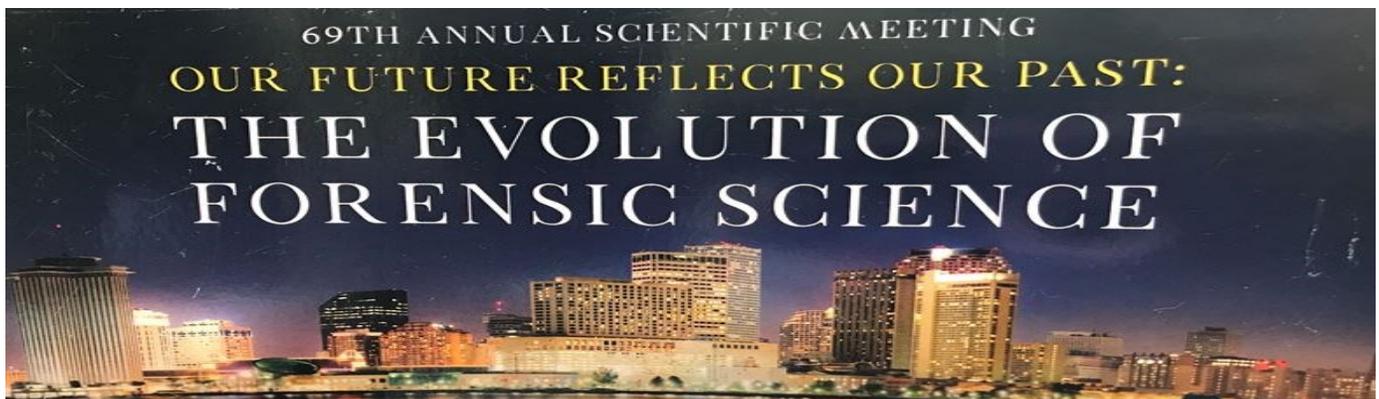
### ***The Evolution of Forensic Science***

#### Forensic Pathology and Anthropology Staff

“Mimic of Pediatric Head Trauma: Bipartite Parietal Bone in Pediatric Cases”  
Richard C. Fries, DO; Dana Austin, PhD; Marc A. Krouse, MD; Tasha Z. Greenberg, MD; Susan J. Roe, MD; Nizam Peerwani, MD.

“Synthetic Opioid U47700: A Series of Cases” Barrie Miller MD; Tasha Z. Greenberg, MD; Richard C. Fries, DO

“Dental Age Estimation” ABFO workshop, Dana Austin, PhD





## **National Institute of Standards and Technology April 2017—Washington, D.C.**

Chief Toxicologist Robert Johnson, Ph.D

Chief of Human Identification, Roger Metcalf



**Grand Rounds**

***(Various Topics)***

**(Meets most Tuesdays during the year)**

Michelle O'Neal - "Drug Chemistry"

Susan Roe, MD - "Abandoned Infants"

Ronald Singer - "You Think You Have It Bad"

Richard Fries, DO - "Death Certificates"

Connie Lewis - "Forensic Toxicology"

Chris Heartsill - "ANAB Assessment Preparation"

Chris Heartsill - "Transition from ASCLD/LAB to ANAB"

Reza Alaeddini - "DNA Mixtures"



**University of North Texas Graduate  
School of Biological Sciences  
April 2017**

Susan R. Howe, Ph.D. - “Toxicology Overview” “Forensic Drug Chemistry”

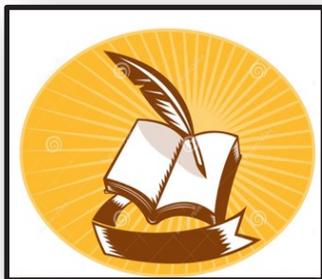


**Tarrant County District Attorney’s  
Office**

**April 2017**

Jamie Becker, B.S.

“Firearms 101: How to present and understand the witness”



Larry Reynolds authored an article, “Photography Notes for the Field Photographer” *American Board of Medicolegal Death Investigators*, Volume 17, Issue 2, Summer 2017.

Roger Metcalf, DDS, authored a chapter in “*Forensic Odontology: Principles and Practice*” Drs. Tom David and Jim Lewis.



**American University of Science &  
Technology, Beirut, Lebanon  
April 2017 & October 2017**

Chief Medical Examiner, Nizam Peerwani, M.D.

“Forensic Medicine”

“Introduction to Criminalistics”



**Society of Forensic Toxicologist Seminar  
October 2017**

Chris Heartsill, B.S. - “Basic Pharmacology”

Robert Johnson, Ph.D. - “Opioid Pharmacology”



**Southwestern Association of Toxicologists**

**Southwestern Association of Forensic Scientists**

Robert Johnson, Ph.D. “The Designer Drug Challenge”



# A Passion to Learn

The field of forensics evolves rapidly, as new technological developments enable improved methods and techniques. The staff of the Tarrant County Medical Examiner's Office are committed to keeping abreast of these changes and seek out opportunities to do so, as shown below.



## **American Academy of Forensic Sciences 69th Annual Meeting: February 2017**

Chief Medical Examiner, Nizam Peerwani, M.D.

Deputy Medical Examiner, Tasha Z. Greenberg, M.D.

Deputy Medical Examiner, Richard C. Fries, D.O.

Forensic Fellow, Barrie Miller, M.D.

Technical and Administrative Director, Ronald Singer, M.S.

Chief Toxicologist, Robert Johnson, Ph.D.

Crime Lab Director, Susan Howe, Ph.D.

Chief of Human Identification, Roger Metcalf, D.D.S; J.D.

Senior Anthropologist, Dana Austin Ph.D.

Quality Manager Chris Heartsill, B.S.



## **United States and Canadian Academy of Pathology Annual March 2017**

Deputy Medical Examiner, Denika Adams, D.O.



## **US Army Criminal Investigation Laboratory Advanced DNA Mixture & STRmix Training Workshop March 2017**

DNA Technical Lead & CODIS Administrator,  
Constance Patton, B.S.

Senior Forensic Biologist, Peggy Le, B.S.

Senior Criminalist, Reza Alaeddini, Ph.D.

Forensic Biologist, Rebecca Klein, MPS



## **Organization of Scientific Area Committees Meeting April 2017**

Chief Toxicologist, Robert Johnson, Ph.D.



## **Southwestern Association of Toxicologists April and November 2017**

Chief Toxicologist, Robert Johnson, Ph.D.

Technical Lead & Senior Toxicologist, Aria McCall, B.S.

Senior Toxicologist, Connie Lewis, B.S.



## **Texas Association of Crime Laboratory Directors Meeting May 2017**

Crime Laboratory Director, Susan Howe, Ph.D.



**Texas Society for Histotechnology**  
**39th Annual Symposium Conference**  
**May 2017**

Forensic Histotechnician, Joe English, Jr.



**Association of Firearm & Toolmark Examiners**  
**Annual Training Seminar**  
**May 2017**

Technical Lead & Senior Criminalist, Jamie Becker, B.S.  
Senior Criminalist, Charles Clow, M.A.



**STRmix Probabilistic Genotyping**  
**June 2017**

DNA Technical Lead & CODIS Administrator,  
Constance Patton, B.S.  
Senior Forensic Biologist, Heather Kramer, M.S.  
Senior Forensic Biologist, Peggy Le, B.S.  
Senior Forensic Biologist, Kristen Hammonds, B.S.  
Forensic Biologist, Rebecca Klein, MPS



**Alcohol Testing Alliance**  
**August 2017**

Senior Forensic Chemist, Sarah Skiles, B.S.



## **International Association of Forensic Sciences August 2017**

Deputy Medical Examiner, Susan Roe, M.D.

Technical and Administrative Director, Ronald Singer, M.S.



## **American Society of Trace Evidence Examiners Conference September 2017**

Technical Lead & Senior Trace Analyst, Vicki Hall, M.S.

Senior Trace Analyst, Anne Koettel, M.S.



## **Osler Institute Pathology Review Course October 2017**

Forensic Fellow, Barrie Miller, M.D.



## **Robert F. Borkenstein Training Course October 2017**

Technical Lead & Senior Forensic Toxicologist,

Aria McCall, B.S.



**Southwestern Association of Forensic  
Scientists *Annual Meeting***  
**October 2017**

Senior Forensic Chemist, Michelle O'Neal, B.S.

Senior Forensic Chemist, Christina Coucke-Garza, M.S.



**Society of Forensic Toxicologists**  
***Workshop***

Technical Lead & Senior Toxicologist, Aria McCall, B.S.

Senior Toxicologist, Connie Lewis, B.S.

Senior Toxicologist, Beryl Landry, B.S.

Senior Toxicologist, Cheryl Wheeler, B.S.

Toxicologist, Leanne Hazard, M.S.

Toxicologist, Katie Scott, B.S.



**Federal Bureau of Investigations**  
***National FBI CODIS Conference***  
**November 2017**

DNA Technical Lead & CODIS Administrator,  
Constance Patton, B.S.



**Texas Vital Statistics Conference**  
**December 2017**

Vital Statistics Coordinator, Christie Smith

# Education in the Office

*For there are some who long to know for the sole purpose of knowing, and that is shameful curiosity; others who long to know in order to become known, and that is shameful vanity . . . others still who long for knowledge in order to sell its fruits for money or honors, and this is shameful profiteering; others again who long to know in order to be of service, and this is charity. —Bernard of Clairvaux*

Staff of the Tarrant County Medical Examiner’s Office meet regularly to review cases, continue professional education, and exchange ideas. A lecture calendar is published and distributed each month to encourage participation.

## Critical Case Review (Twice Monthly)

Generally meeting at lunch on the second and fourth Wednesdays of each month, Critical Case Review gives the medical examiners time to discuss their most complex or high-profile cases with each other and with key members of staff from the investigative, laboratory, and identification sections of the office. Unexpected findings, unusual developments, and contradictory evidence are all reviewed and analyzed before a consensus regarding cause and manner of death is reached. In particularly difficult cases, examiners may agree to “re-pond” a case and review it again at a later Critical Case Review, while the case’s medical examiner solicits more information by ordering specialized testing, seeking law enforcement agency input, requesting more medical records, or some combination thereof.



A summary of reviewed cases and their disposition is produced by the meeting’s scribe and submitted to qualify Critical Case Review meetings for Continuing Medical Education (CME) credits. In this way, Critical Case Review fulfills two needs at once and enables medical examiners to spend more of their time working on cases for

## **Child Mortality Case Review (Monthly)**

A “cousin” of Critical Case Review, Child Mortality Case Review was born of the desire to increase transparency with child welfare advocates and educate health, law, and social service agencies about the rigorous process of determining cause and manner of death in pediatric cases. It is limited to cases in which (1) the decedent is between 0 and 17 years of age at the time of death and (2) the death occurred within Tarrant County.

As with Critical Case Review, a summary of reviewed cases and their disposition is produced by the meeting’s scribe and submitted to qualify these meetings for Continuing Medical Education (CME) credits, again helping medical examiners spend more of their time completing cases.

## **Grand Rounds (Near-Weekly)**

At 8:00 a.m. most Tuesdays of the year, excluding those following Monday holidays, the Tarrant County Medical Examiner's Office hosts an hour-long presentation given by an invited speaker or by a member of our staff on a range of topics in the fields of forensics, law, health, and medicine. Audiences are typically drawn from medical students, healthcare providers, and law enforcement personnel.

## **Journal Club (Monthly)**

The Journal Club meets for lunch in the second floor library of the Tarrant County Medical Examiner’s Office. A scholarly article in forensics, medicine, or a closely-related discipline is selected ahead of time for discussion to help participants stay better informed of developments in their fields.

## **Morning Mortality Conference (Daily)**

Each morning at 8:30 a.m., the forensic pathologists of the Tarrant County Medical Examiner’s Office meet to review the day’s schedule of cases, determine what procedure (autopsy, partial autopsy, or external examination) each case requires, and assign cases to each examiner. In this way cases are triaged effectively, much as they would be in a hospital or clinical setting. Morning Mortality also serves as a short-form Critical Case Review, in that guidance may be sought from the group on how best to proceed with complex or sensitive cases.

# Future Forensic Scientists

*In all, 47 residents enrolled in 39 accredited forensic pathology programs in 2010—low compared with many other medical subspecialties and barely on the radar of the roughly 6,000 students who go into internal medicine in the U.S. every year.*

*Part of the problem, experts say, is there isn't enough material support or direct connections to pathology departments in medical schools and training hospitals, where students could get more exposure to the work of forensic pathology and become more interested in pursuing it as a subspecialty. —“Forensic Pathologists: The Death Detectives,” PBS Frontline Post Mortem: Death Investigation in America*

**A**s part of our commitment to those we serve, the Tarrant County Medical Examiner’s Office is proud to do its part to train the next generation of forensic pathologists and other forensic scientists through the comprehensive educational initiatives described below.

## Tarrant County and United Arab Emirates

In 2015, Tarrant County entered into a partnership with the Abu Dhabi Judicial Department in the United Arab Emirates, enabling scientists from the forensic laboratory to spend the beginning six months of the year training in Toxicology and Drug Chemistry.

Training included comprehensive lectures on laboratory quality, method development and validation, and forensic laboratory operations. Hands-on training was additionally provided in the analytical evaluation of drug analysis and identification, postmortem toxicology, and human performance toxicology.



In 2016 and 2017, Tarrant County followed up the training that took place in 2015 with visits to Abu Dhabi. The focus of these visits was to assist and ensure laboratory implemented validated procedures, analyst training programs, and a quality management system in preparation for international accreditation. Training and laboratory support were provided by Dr. Nizam Peerwani, Dr. Robert Johnson, Chris Heartsill, continuing the long distance partnership for learning with the Abu Dhabi Judicial Department.



## Students from Abroad

Students from a variety of programs at the American University in Beirut and the American University of Science and Technology in Achrafieh attend a long internship, rotating through the Tarrant County Medical Examiner's Office and each forensic laboratory section within it. The students observe all aspects of forensic laboratory operations and medicolegal death investigation. As they would in an apprenticeship, students progress at their own pace and are free to delve more deeply into areas that particularly excite their interest. Interactions with staff allow them to expand their knowledge of scientific, medical, and forensic issues.



Roger Haddad

January 2017–Toxicology

Former student at the American University of Science and Technology

Also participating in Tarrant County Medical Examiner's internship program in 2017 were students from Sam Houston State University and Texas Women's University.



Katelynn Wilson  
Summer 2017 - Toxicology  
Sam Houston State University



Leslie Tschoepe  
Summer 2017 - Toxicology  
Sam Houston State University



Mary Gonzalez Sola, Ph.D.  
November 2017 - Anthropology  
Texas Women's University

## Medical School Rotation

The Tarrant County Medical Examiner's Office offers a month-long rotation for fourth-year medical students from qualifying educational institutions. These students get comprehensive exposure to autopsy processes, death investigation, and all aspects of forensic laboratory operation.



A rigorous schedule allows for students to spend time in each section of the forensic laboratory, in administration and investigations, and in morgue operations. One-on-one lectures given by specialized staff members provide depth and detail to the student's experience. The time spent in a comprehensive forensic facility offers educational opportunities that meet the requirements of any medical rotation. In 2017, students rotating through the Tarrant County Medical Examiner's Office were:

Rahul Sawhney

Teresa Dunphy

David Gregorio

Sarah Glogowski

Michelle McDonald





